

WELLCOME HISTORICAL MEDICAL LIBRARY STORE,

WELLCOME CHEMICAL WORKS,

805, BAY 1,

DARTFORD, KENT.

W.C.R.L.

28 AUG 1953

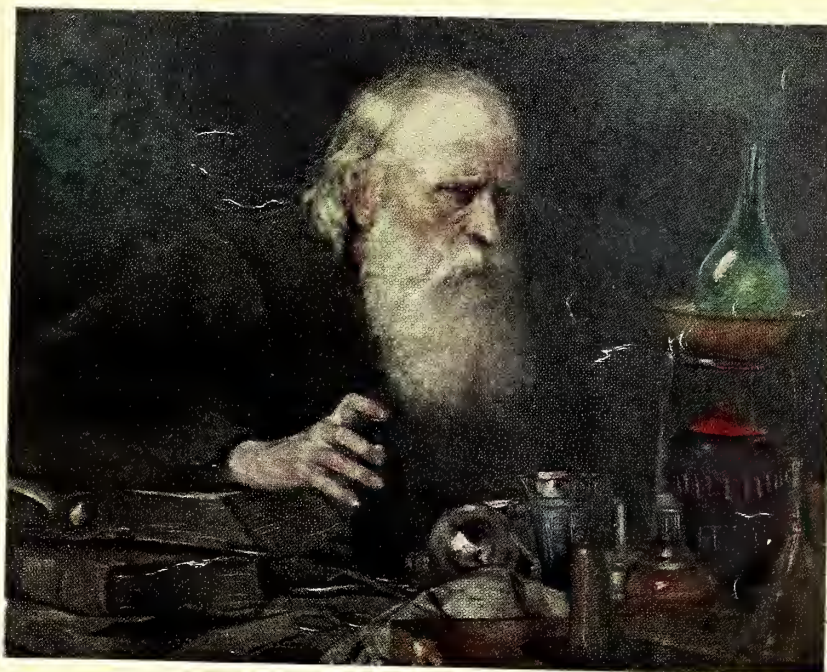
The



CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

AUGUST 29 1953



Alchemists

sought for the philosophers' stone and the elixir of life. Modern scientists, though less romantic, are more practical. They content themselves with curing disease and prolonging life's span. The Biddle Sawyer organisations, throughout the world, strive to keep abreast of scientific developments, and to bring the latest benefits of medical science to all parts of the globe and into the hands of those qualified to dispense them.

WELLCOME CHEMICAL WORKS,

805, BAY 1,

DARTFORD, KENT.

BIDDLE, SAWYER & CO. LTD.

4 GRAFTON STREET, LONDON, W.1.

Tel: Hyde Park 0521 Grams: Bidsawya, Piccy,
London Cables; Bidsawya, London.

PARIS · NEW YORK · BOMBAY · BUENOS AIRES · RIO DE
JANEIRO · JOHANNESBURG · FRANKFURT · HONG KONG

Associated companies and offices throughout the world.

There's a steadily growing market for



Yes, sales have been on the increase ever since Keen, Robinson & Co. introduced Robrex, their 3-in-1 ready-cooked weaning food. And there are positive signs that Robrex sales will go on rising for a very long time yet. For all these reasons:—

National advertising in the Radio Times and other large-circulation papers is bringing Robrex to the attention of millions of mothers.

Robrex is the most attractively packed of all pre-cooked cereals. Display it, and it makes a host of 'casual' sales—many of whom soon become 'regulars.'

Keen, Robinson back up their baby products with a valuable information service. Leaflets, booklets, etc. on feeding and child welfare give mothers sound and easy-to-follow advice.

Robrex is a balanced blend of wheat, barley and oats—the ideal type of weaning food recommended by the medical profession and welfare centres. What is more, Robrex is easy-to-serve for mothers and nice-to-eat for babies.

Take a look at your shelves. Isn't it time to be building up your stocks of Robinson's Robrex?

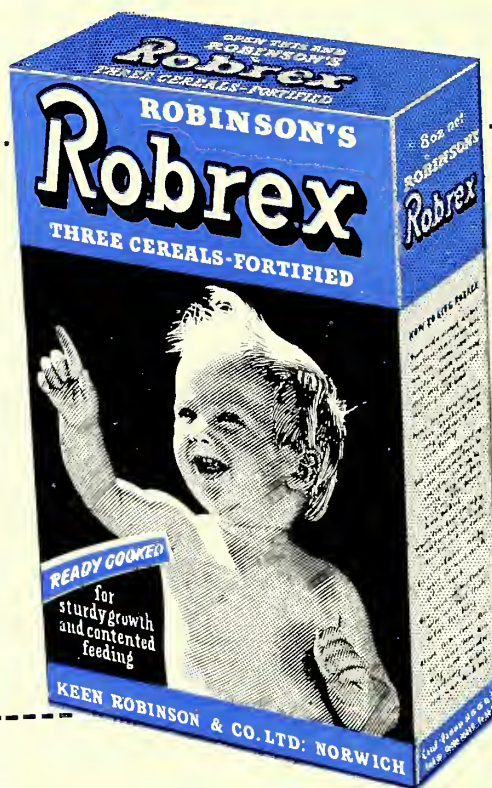
see you get your share of bigger **Robrex** sales

NATIONAL ADVERTISING

Regular and powerful advertising in these big circulation papers is constantly reminding *nearly every mother in Britain* about Robrex:

DAILY MIRROR	circulation	4,535,687
NEWS OF THE WORLD ..	„	8,168,820
SUNDAY PICTORIAL ..	„	5,262,856
PEOPLE	„	5,129,137
RADIO TIMES	„	7,945,639

Advertisements are appearing regularly, too, in all the leading medical and nursing papers, including *Nursing Mirror*, *Mother & Child*, and *Nursery Journal*. No wonder Robrex sales keep rising!



This bold Crowner

in blue and yellow turns the attractive Robrex pack into a handsome counter display that really pulls in sales. Ask for one (and a showcard too) from the Keen, Robinson representative when you order your Robrex supply.

weaning?

then try Robrex



KEEN, ROBINSON & CO. LTD., CARROW WORKS, NORWICH

IT is clearly evident from the latest marketing surveys that the public is increasingly concerned with value for money. There is, in addition, every indication that it is more conscious than ever before of the need for domestic and personal hygiene. Combine these two factors and you realise why more and more people are turning to Ibcol. *For Ibcol is the all-purpose disinfectant-antiseptic that gives the widest protection at the lowest price.*

Through extensive national advertising, millions of housewives have become aware that this is the germicide used in an ever-increasing number of hospitals and maternity homes. No wonder, then, that housewives place such complete trust in this most comprehensive of disinfectant-antiseptics; no wonder progressive chemists throughout the country find Ibcol so essential and so rewarding an item to stock and display.

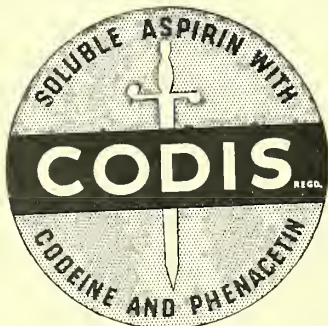
A CODIS tablet placed in water

provides in a few seconds a SOLUTION of
calcium aspirin and codeine phosphate,
with phenacetin in fine suspension.

For all those conditions for which, hitherto, Tab. Codein. Co. B.P. would have been prescribed, Codis may for preference, be recommended. It is easier to *administer*. There is far less likelihood of aspirin intolerance; the absorption of aspirin, being in solution, is accelerated.

The reason for these marked advantages is that in this familiar grouping of analgesic drugs the aspirin has been made soluble, as in 'Solprin' which, in a matter of seconds, produces a palatable solution of calcium aspirin.

The possibility of irritation of the gastric mucosa is minimised by the absence of undissolved particles of aspirin.



COMPOSITION

Each Codis tablet weighs 11.45 grs. and contains:—
Acid. Acetylsalicyl. B.P. 4 grs., Phenacet. B.P.
4 grs., Codein. Phosph. B.P. 0.125 grs., Calc. Carb.
B.P. 1.2 grs., Acid. Cit. B.P. (Exsic.) 0.4 grs.

Codis is not advertised to the public.

DISPENSING PACK (Purchase Tax Free) 300 tablets in
distinctive gold foils of 6 tablets each, 16/6 per box.

OTHER SIZES—Packs of 20 tablets, 2/7 each inc. P.T.
(in bottles or foil).



"Dream Time"

EVERY FRIDAY FROM 10-10.15 P.M. THE LACTO-CALAMINE RADIO LUXEMBOURG PROGRAMME SELLS TO AN AVERAGE AUDIENCE OF 4 MILLION LISTENERS. NOW ECONOMICALLY PRICED, SALES ARE SOARING. YOUR REPEAT ORDERS MAY STILL BE PLACED ON BONUS TERMS.

BONUS PARCELS

PARCEL LA	26 × 4 oz. bottles @ 3/1½d. retail inc. P.T.	
	Total retail value	4 1 3
	Cost of parcel	3 1 8
PARCEL LB	84 × 4 oz. bottles @ 3/1½d. retail inc. P.T.	
	Total retail value	13 2 6
	Cost of parcel	9 11 8
PARCEL LC(S)	26 × 1 oz. bottles @ 1/7d. retail inc. P.T.	
	Total retail value	2 1 2
	Cost of parcel	1 10 10
PARCEL LC(L)	84 × 1 oz. bottles @ 1/7d. retail inc. P.T.	
	Total retail value	6 13 0
	Cost of parcel	4 15 10
PARCEL LD	26 tubes @ 3/1½d. retail inc. P.T.	
	Total retail value	4 1 3
	Cost of parcel	3 1 8
PARCEL LE	26 tins @ 3/1½d. retail inc. P.T.	
	Total retail value	4 1 3
	Cost of parcel	3 1 8

CARRIAGE PAID ON ORDERS OVER £2 NETT
IN VALUE EXCLUDING PURCHASE TAX.

CROOKES

Lacto-Calamine



P.A.T.A.

THE CROOKES LABORATORIES LIMITED • PARK ROYAL • LONDON • N.W.10



We are
actual
makers

We specialise in **quality ASPIRIN** *tablets*

**PACKED OR IN BULK
BEST PRICES
FINEST QUALITY
PROMPT DELIVERY**

also SACCHARIN TABLETS—still
the lowest price for large or
small quantities



The

WALLIS LABORATORY LIMITED

58 KING GEORGE'S AVENUE, WATFORD, HERTS.

Telephone: WATFORD 2812

PRICE REDUCTIONS

ELI LILLY & COMPANY LIMITED

*Announce the following price reductions for 'DURACILLIN'
preparations as from Monday, August 31st., 1953.*

	OLD PRICE	NEW PRICE
'DURACILLIN A.S.' 10 c.c. ampoule.	12/1½d.	10/4½d.
'DURACILLIN A.S.' 1 c.c. ampoule.	3/-d.	2/10½d.

The above are retail prices, exempt from purchase tax.

Applications from retail pharmacists for credit on stocks held at closing time on August 29th., should quote batch numbers, and should be made within 14 days to Eli Lilly & Co. Ltd.

Lilly
TRADE MARK

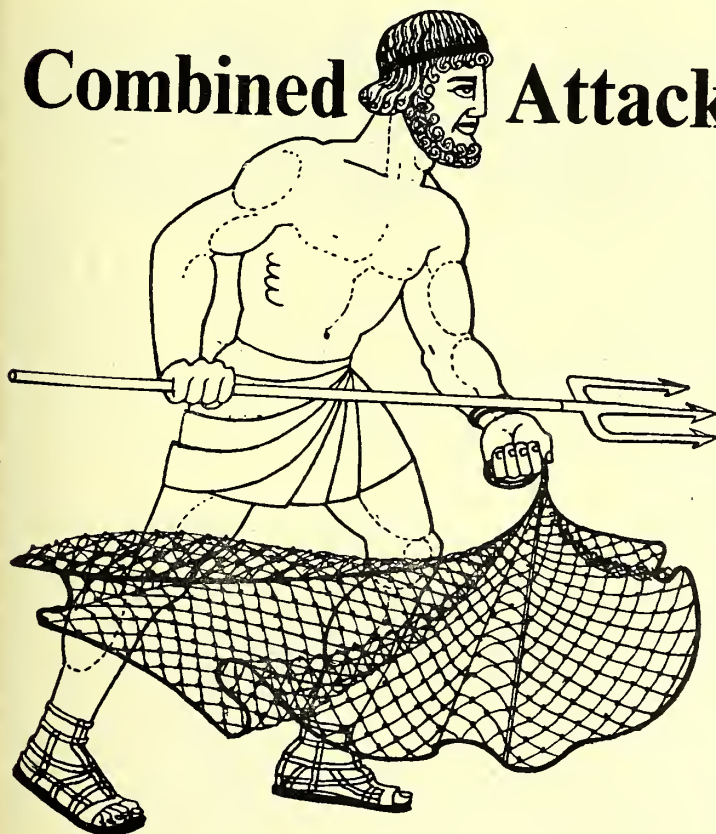
ELI LILLY & COMPANY LIMITED · BASINGSTOKE · HANTS

INDEX TO ADVERTISERS

Addis, Ltd.	19	Chemist and Druggist, The Dictionary of Synonyms	31
Albro Fillers & Engineering Co., Ltd.	25	Ciba Laboratories, Ltd.	18
Allen & Hanburys, Ltd.	18	"Codis"	2
Armour Laboratories, The	10	Colman, J. J., Ltd.	ii
Ashwood Timber Industries, Ltd.	22	Coloroll, Ltd.	24
		Cox, Arthur H., & Co., Ltd.	8
Beatson Clark & Co., Ltd.	22	Crookes Laboratories, Ltd., The	3
Bell, John, Hills & Lucas, Ltd.	14	Cuxson, Gerrard & Co., Ltd.	35
Biddle, Sawyer & Co., Ltd.	Front Cover		
Bovril, Ltd.	29	Daniel, Richard & Son, Ltd.	13
Brannan, S., & Sons, Ltd.	34	Distillers Co. (Biochemicals), Ltd., The	9
British Drug Houses, Ltd., The	5	Dunn Brothers' Succrs., Ltd.	30
Buckley Bowker Tablet Co., Ltd.	30	Dyanese, Ltd.	34
Burrough, James, Ltd.	Leader Page		
Burroughs Wellcome & Co.	15		
		Edge, Wm., & Sons, Ltd.	35
Cannon Rubber Manufacturers, Ltd., The	36	Edme, Ltd.	31
Caplin, J. L., Ltd.	22	Elasto	31
Carnegie Chemicals (Welwyn), Ltd.	6	Eli Lilly & Co., Ltd.	4
Carton Box & Printing Co., Ltd.	26	Ephazone, Ltd.	26
Cartwright, W. B., Ltd.	7		
Chemist and Druggist, Diseases and Remedies	28	Ferris & Co., Ltd.	30
Chemist and Druggist, Pharmaceutical Emulsions	33	Fish Optical Co., Ltd.	31
Chemist and Druggist, Pharmaceutical Formulas	35	Flexile Metal Co., Ltd.	21
Chemist and Druggist Poisons Guide	Leader Page		
Chemist and Druggist, The Art of Dispensing	20		

(continued overleaf)

Combined Attack



The combined use of Mycil Ointment and Mycil Dusting Powder provides effective *non-mercurial* treatment for athlete's foot and other fungal infections of the skin.

Mycil Ointment penetrates deeply to the site of infection.

Mycil Foot Powder protects against reinfection after clinical cure has been effected and is a useful agent with which to combat excessive perspiration.



'MYCIL'

'MYCIL' OINTMENT
in collapsible metal tubes
Trade 1/6 Retail 2/8

'MYCIL' FOOT POWDER
in sprinkler tins
Trade 1/6 Retail 2/8

THE BRITISH DRUG HOUSES LTD. LONDON N.1
MYC/T/11

INDEX (cont.)

Franco-British Glass Co., Ltd., The	24	Manesty Machines, Ltd.	10
Freudentheil, Smith & Co.	Leader Page	Medico-Biological Laboratories, Ltd.	12
		"Myers of Old Street"	Col. Supp.
Gale & Mount, Ltd.	32	Orridge & Co.	Col. Supp.
Gardner, William, & Sons (Gloucester), Ltd.	23		
Gerhardt, C. F., Ltd.	16	Rayner & Co., Ltd.	32
Gledhill, G. H., & Son, Ltd.	34	Regna' Cash Register Co., The	22
Goya (Corvette), Ltd.	Cover iv		
Greyer, Brecheisen & Co., Ltd.	30	Savory & Moore, Ltd.	29
		Simpkin, A. L., Ltd.	26
Halewood Chemicals, Ltd.	Leader Page	Southalls (Birmingham), L'd.	16
Herbert & Sons, Ltd.	34	Standard Synthetics, Ltd.	32
Herts Pharmaceuticals, Ltd.	17	Suttley & Silverlock	24
Hinders, Ltd.	Leader Page		
Holland, I., Ltd.	Leader Page	Tempo Laboratories, Ltd.	26
Hygienic Drinking Straws Co., Ltd.	26	Thompson & Capper Wholesale, Ltd.	14
		Tokalon, Ltd.	26
Ibbetson's	1		
Impact Extrusions, Ltd.	34	Vacco, Ltd.	25
		Vitamins, Ltd.	11
Kay Bros., Ltd.	32		
Kearsley, C. & G., Ltd.	30	Wallis Laboratory, Ltd., The	4
Kemsales, Ltd.	Leader Page	Waterhouse for Shop Fittings	21
		Whiffen & Sons, Ltd.	Cover iii
Leda Chemicals, Ltd.	27	Whitelaw, J. N., Ltd.	10
		Williams, Charles & Co.	30
Macdonald & Son, Ltd.	13	Woodward, G. O., & Co., Ltd.	Leader Page

From the Carnegie Range of Fine Chemicals

THEOBROMINE AND SALTS

CARNEGIE CHEMICALS (WELWYN) LTD

WELWYN GARDEN CITY : HERTFORDSHIRE : ENGLAND

Telegrams : CARNECHEM, WELWYN GARDEN

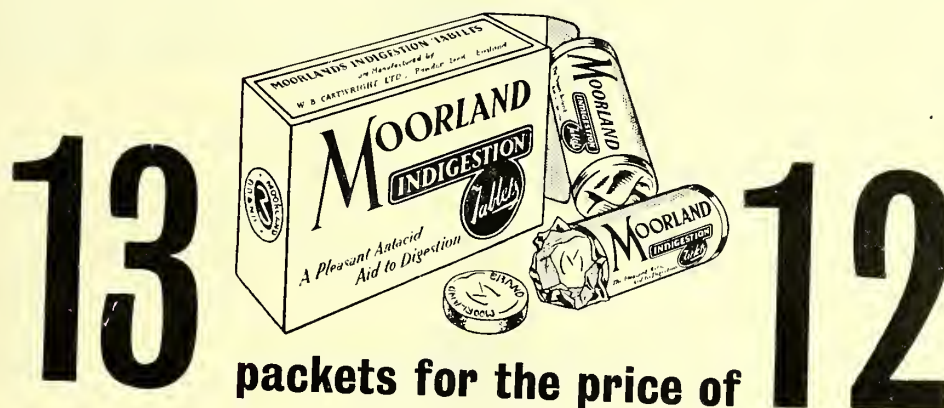
Telephone : WELWYN GARDEN 506 (4 lines)

To Retail Chemists only

During September only we offer a

Special Bonus

on all orders for Moorland ANTACID
INDIGESTION Tablets



packets for the price of

On every dozen packets of **Moorland Antacid Indigestion Tablets** you order between September 1st and 30th, you will receive one bonus packet. **We offer you 13 packets to the dozen.** Moreover, you pay **no Purchase Tax** on the bonus—we pay that for you.

Moorland Antacid Indigestion Tablets are :
a C.F. and P.A.T.A. line ;
have always been sold to the public **only through chemists** ;
are cheaper **per dose** than any other indigestion remedy.

Moorlands are an all-the-year-round best-seller. Over 34 million advertisements for Moorlands appear each month in Britain's newspapers. **That's why it is always worth your while to stock, display and sell Moorland Antacid Indigestion Tablets.**

RETAIL PRICES IN CARTONS

Small size 1/-

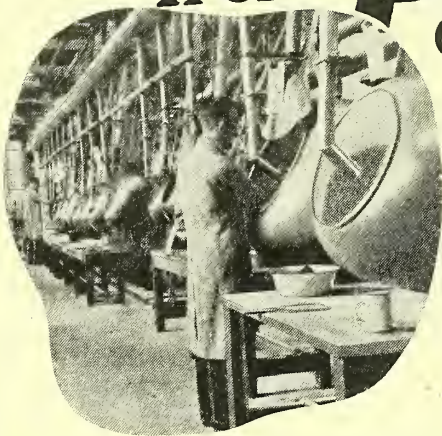
containing 4 rolls of 10 tablets (40 tablets equals 20 doses).

Large size 1/11

containing 8 rolls of 10 tablets (80 tablets equals 40 doses).

W. B. CARTWRIGHT LTD., RAWDON, LEEDS

from Pan to Pack



Here's an organisation
that takes care of the
whole job —



Manufacturing and packaging. From the time your formula is received, followed by the first experimental sample, and through all the stages of manufacture to the final consumer package, you have the satisfaction of knowing your requirements are being studied in every detail.

CONSULT

Cox of Brighton

for all your

Tablets

PILLS · OINTMENTS · CREAMS

PASTILLES · CAPSULES

SOLVELLAE · SUPPOSITORIES

and Complete production of CHEMISTS' OWN BRAND lines.

ARTHUR H. COX & CO. LTD.,
MANUFACTURING CHEMISTS SINCE 1839
BRIGHTON, 7, SUSSEX.

IMPORTANT Price Reduction

The Distillers Company (Biochemicals) Ltd., Speke, Liverpool 19, on behalf of its distributors: Allen & Hanburys Ltd., The British Drug Houses Ltd., Burroughs Wellcome & Co., Evans Medical Supplies Ltd., Imperial Chemical (Pharmaceuticals) Ltd., and Pharmaceutical Specialities (May & Baker) Ltd., announces the following reduced retail prices from August 31:

CRYSTALLINE PENICILLIN G				s. d.	s. d.	'DISTAQUAINE' SUSPENSION				s. d.	s. d.
<i>Sodium Salt and Potassium Salt (buffered)</i>				Single vial	Box of 5 vials	10 ml. (3 mega units)				Single vial	Box of 10 vials
*0.1 mega unit	...	...	...	1 0	5 0					10 4½	103 9
0.2 mega unit	...	...	...	1 1½	5 7½	STREPTOMYCIN (Sulphate) and DIHYDROSTREPTOMYCIN (Sulphate)				Single vial	Box of 5 vials
0.5 mega unit	...	...	...	1 10½	9 4½	1 gramme (1 mega unit)				3 3	16 3
1.0 mega unit	...	...	...	3 0	15 0	5 grammes (5 mega units)... ..				13 9	
				Single Container		'DISTAVONE'				3 6	17 6
5.0 mega units	...	...	...	12 6		'MIXTAMYCIN'					
10.0 mega units	...	...	...	23 9		1 mega unit				3 3	16 3
<i>*Potassium Salt (buffered) not available in this size vial.</i>						'STREPTAQUAINE'					
'DISTAQUAINE' G				Single vial	Box of 5 vials	1.0 mega unit				3 3	16 3
0.3 mega unit	...	...	...	1 7½	8 1½	<p style="text-align: center;">ALL PRICES SUBJECT TO THE USUAL DISCOUNTS</p> <p style="text-align: center;"><i>Applications from the retail and wholesale trade for credit on stocks held at closing time on August 29th should be made within 14 days to the supplier by whom the goods were invoiced, quoting batch numbers.</i></p>					
0.9 mega unit	...	...	...	3 4½	16 10½						
					Box of 10 vials						
3.0 mega units	...	...	...	9 9	97 6						
'DISTAQUAINE' FORTIFIED				Single vial	Box of 5 vials						
0.4 mega unit	...	...	...	1 10½	9 4½						
1.2 mega units	...	...	...	4 3	21 3						
					Box of 10 vials						
4.0 mega units	...	...	...	12 7½	126 3						

All names printed thus, 'DISTAQUAINE', are trade marks and the property of the manufacturers.

THE DISTILLERS COMPANY (BIOCHEMICALS) LIMITED
SPEKE · LIVERPOOL



YOUR TABLET CARTONS AT THE
RIGHT PRICE AND DISPATCHED
PRINTED IN SEVEN DAYS (Carr. Paid)

J. N. WHITELOW LTD

CARTON AND LABEL PRINTERS
Palestine Grove, Merton, London, S.W.19
Telephone: MITcham 4411



BIOPAR TABLETS

VITAMIN B₁₂ AND INTRINSIC FACTOR



EFFECTIVE ORAL REPLACEMENT
FOR INJECTABLE VITAMIN B₁₂

Bottles of 30, 60 and 500

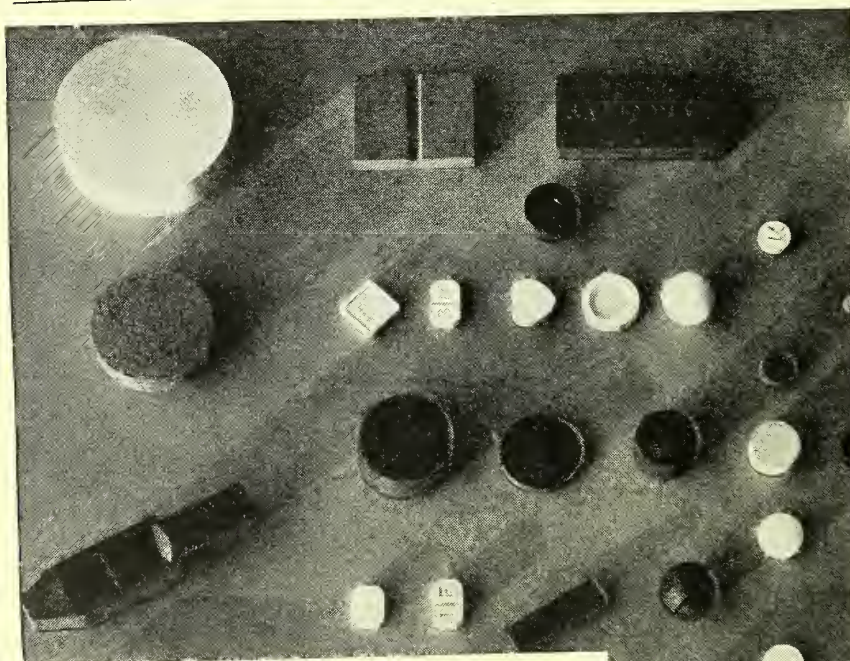
Write for Literature to:

THE ARMOUR LABORATORIES
(ARMOUR & COMPANY LTD)

LINDSEY STREET, LONDON, E.C.1

Telephone: Clerkenwell 9011

Telegrams: "Armosata-Phone," London



MANESTY

PUNCHES & DIES

FOR

ALL TABLET MACHINES

MANESTY MACHINES LIMITED have behind them 40 years' experience in making punches and dies, and know the best steels or other metals to use, the correct hardening procedure and the best limits to work to. Extensive alterations to the Punch and Die Department, including the installation of a large number of precision machines, enable PROMPT DELIVERIES to be made.

Have you this book? "Tablet Making"—An authoritative volume by A. Little & K. A. Mitchell. 123 pp. 47 illus. 31 formulæ. Cloth bound. 15/- net. Post free.

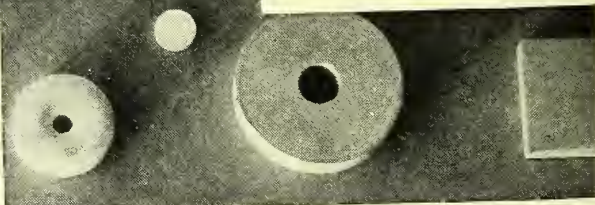
MANESTY MACHINES LTD.

DEPT. 5

SPEKE

LIVERPOOL 19

Telephone: Hunts Cross 1972 Telegrams: Manesty, Liverpool 19



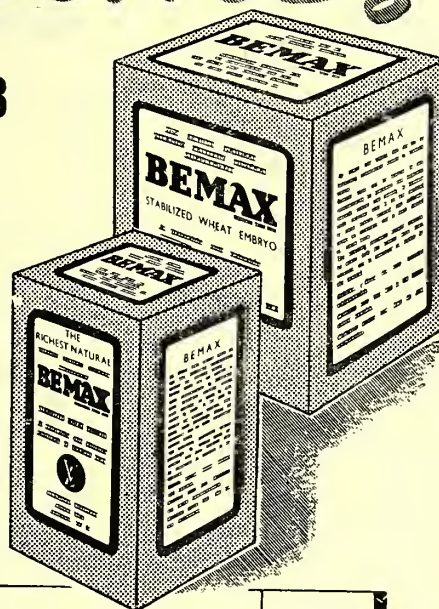
Have you booked your BIG BEMAX BONUS?

Available 1st September—17th October, 1953

THE BEMAX BONUS OFFER, in alternative forms, coincides with the start of the Bemax autumn advertising. This, the strongest ever, will briskly step up the steadily mounting demand for this world-renowned *natural* vitamin-protein-mineral food supplement.

More and more people are coming to realize its value—indeed its indispensability—under the conditions of life today. More and more doctors advise it.

Full details of the bonus offers have been sent to you by post. Here for convenience are the details. Don't forget to send in your order form.†



BONUS No. 1 **BEMAX** only

PARCELS		STANDARD LIST PRICE	QUANTITY TERMS	★ SPECIAL BONUS DISCOUNT equivalent to 13 to the dozen DEDUCTED FROM INVOICE	BONUS TERMS	PROFIT
BX.1	6 dozen x 1/9 size	99/-	96/-		88/-	38/-
BX.2	3 dozen x 3/- size	85/6	81/9		75/-	33/-
BX.3	1½ dozen x 5/6 size	78/9	75/-		68/9	30/3
BX.4	2 dozen x 3/- size ½ dozen x 5/6 size	83/3	79/6		72/11	32/1
BX.5	1 dozen x 1/9 size 1½ dozen x 3/- size ½ dozen x 5/6 size	85/6	81/11		75/-	33/-

★ The above Bonus discount is additional to the existing trade discount as well as the discount allowed on quantity orders.

BONUS No. 2 **BEMAX** and Pharmaceuticals

PARCEL M.1	MIXED PARCEL INVOICE VALUE not less than £5	ADDITIONAL 10% DISCOUNT
PARCEL M.2	MIXED PARCEL INVOICE VALUE not less than £10	ADDITIONAL 12½% DISCOUNT

The details below will assist when making up your parcel.

BEMAX	1/9	16/6 per doz.
	3/-	28/6 " "
	5/6	52/6 " "
COMPLEVITE	6/1	24/4 per half doz.
		48/8 per doz.
VITAVEL SYRUP	3/9	30/- per doz.

To remind you what to do
Send in the order form between
September 1st and October 17th.
Use the display material
sent with goods for your Window
and Counter for at least
14 days during the Bonus period.

But remember, too,

*it always pays
to display BEMAX*

BEMAX has enjoyed the confidence of the Medical Profession for over **25 YEARS**

† If you have not yet received details of the Bonus Offer write at once for full particulars to
VITAMINS LTD., 23 UPPER MALL, LONDON, W.6

POLYVALENT INTESTINAL BACTERIOPHAGE

Enterofagos

The biological answer

ENTEROFAGOS is one of the series of M.B.L. preparations which enjoy the confidence of the Medical profession in this country and overseas. By prolonged laboratory and clinical tests it has been established as the biological answer to most intestinal, para-intestinal, kidney and bladder infections.

ENTEROFAGOS contains the active bacteriophages against Staphylococci, Streptococci, B. coli, B. Typhosus, B. paratyphosus, B. dysenteriae and Enterococci. Whatever the dosage, it can be given to adults or children without fear of harmful reactions, and this combination of efficacy and safety makes ENTEROFAGOS the ideal treatment for the infective conditions indicated.

The preparation is contained in ampoules to be taken orally according to the instructions supplied.

Indications

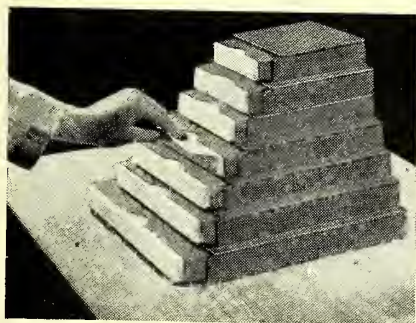
Most cases of Diarrhoea respond rapidly to treatment with ENTEROFAGOS. Colitis, Enteritis, Entero-colitis, Typhoid and Paratyphoid Fevers, Bacillary Dysentery, B.Coli Infections, Food Poisoning are equally responsive to its treatment.

The logo consists of the letters 'MBL' in a bold, sans-serif font, enclosed within a shield-like border. The shield has a decorative, slightly irregular shape with a pointed bottom.

MEDICO-BIOLOGICAL LABORATORIES LTD
CARGREEN ROAD, SOUTH NORWOOD, LONDON, S.E.25

FOR CHEMISTS**DRUGS****SUNDRIES***Manufacturing Chemists***PILLS • TABLETS
PROPRIETARIES**

HEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines)
BRANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

IT COSTS YOU NOTHING — yet

*it saves your time
saves waste*

This

FREE CABINET

for Certor Dispensing Parchment keeps
your dispensing paper as you like it to
be kept—always clean, always at hand
ready for wrapping the next bottle.

Strongly made of wood. Approximate size: 10½"
high; 13" wide; 13" long.

**GET ONE OF THESE FREE
CABINETS NOW** by sending in your
order for Certor Dispensing Parchment to
the value of £9. The order can be varied,
providing the total is not less than £9.

SIZE	NO. OF REAMS	COST PER REAM	TOTAL COST
		s. d.	£ s. d.
Powder	2	1 7	3 2
1 oz.	2	2 5	4 10
2 oz.	3	2 10	8 6
3/4 oz.	4	4 6	18 0
6 oz.	2	5 6	11 0
8/10 oz.	12	6 6	3 18 0
12/16 oz.	6	9 5	2 16 6
			£9 0 0

DELIVERY. The whole order can be taken at once, or, if preferred, one half can be sent with the cabinet and the other half sent three months later. All goods sent carriage paid in free packages.

MACDONALD & SON LTD. • HOPE MILLS • POLLARD STREET • MANCHESTER, 4



Order Now

FOR SUMMER SALES

SAN SAT

removes Beach Tar and Oil
Stains from Skin and Clothes

Retail 1/9 a bottle

Trade 14/- per dozen tax free



Children's
Travel Sickness Preventive
Safe and effective

Retail 1/11 a bottle

Trade Price 11/6 per dozen.
(P. Tax 2/10½)

Bromodal

JOHN BELL, HILLS & LUCAS LTD
Oxford Works, Worsley Bridge Road, London, S.E.26

CAG

Quality First

We have been making compressed tablets for over 50 years. Our first consideration is always QUALITY.

Tablets to standard formulæ always in stock.

Our plant is capable of making perfect tablets from $\frac{1}{8}$ " to $2\frac{1}{2}$ " in diameter, and 8 milligrammes to 4 ounces in weight.

WE SPECIALIZE IN EXPERIMENTAL WORK

THOMPSON & CAPPER

WHOLESALE LTD.

SPEKE HALL ROAD,
LIVERPOOL, 19

PENICILLIN 'B.W. & CO.'

Further reductions in retail prices...

In addition to the reduction in phialled Penicillin prices announced elsewhere in this issue, the following reduced retail prices for Penicillin Products manufactured by B. W. & Co. come into effect on 31st August 1953

'TABLOID' PENICILLIN ORAL

BRAND

		NEW LIST PRICE
		s. d.
20,000 I.U. per product, bottle of 20		3 9
" " " " " " 100		15 6
" " " " " " 250		36 3
100,000 " " " tube of 10		4 10½
" " " " bottle of 100		40 6
" " " " " " 250		100 0
200,000 " " " tube of 10		5 7½
" " " " bottle of 100		49 3
" " " " " " 250		121 0
500,000 " " " tube of 10		13 9
" " " " bottle of 100		112 0

'WELLCOME' Oily Injection of PROCAINE BENZYL PENICILLIN

BRAND

300,000 I.U. per c.c., rubber-capped bottle of 10 c.c.	10 4½
--	-------

Prices of other Penicillin Products manufactured by Burroughs Wellcome & Co. remain unaltered

Credit will be allowed on stocks for the difference in value between the new and old prices. A claim form is obtainable and must be returned by September 14th, 1953. If supplies have been purchased through wholesalers, claims should be sent to them, quoting batch numbers of the stock.



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) **LONDON**

**Southalls announce a new name
for a popular product . . . and**

She will say
Southalls TRAVLA

Southalls Travla is the popular Southalls Compressed All-wool Santowel with a new name, improved quality and softness and a new pack. Women will like the discreet pale grey of this pack and its small size (2 $\frac{3}{8}$ " long, 1 $\frac{3}{8}$ " wide, 1" deep), ideal for handbag, evening bag or pocket. Southalls Travla is announced in the Daily Mirror, Woman and Woman's Own which appeal to millions of readers. Order from your wholesaler without delay, or, when our representative calls, let her send your order in.

Retail price: 4d. each, 3/9d. for 12
Trade price: 34/- per doz. boxes

*Southalls Travla are packed in cartons
of 12 with display tops for self-service
and counter display.*

Southalls TRAVLA made by the makers of
'ORIGINAL', 'SOLUBLE' and 'K' SANTOWELS
SOUTHALLS (Birmingham) LTD., Charford Mills, Saltley, Birmingham, 8.



**YOU can be assured
of fine quality
from C. F. GERHARDT LTD**

AMINOPHYLLINE B.P. . CASCARA BARK
CAFFEINE ALK. B.P. . LOBELIA HERB
CHLORAL HYDRATE B.P. . RAUWOLFIA SERPENTINA
PIPERAZINE B.P.C. . RAW OPIUM
THEOBROMINE ALK B.P.C. . SENEGA ROOT
THEOPHYLLINE ALK. B.P. . WITCH HAZEL LEAVES

*May we send you our complete list of Botanical Drugs, fine
pharmaceutical Chemicals, and pure Organo-Synthetic Drugs?*

C. F. GERHARDT LTD

5 FENCHURCH STREET, LONDON, E.C.3

Tel: MANsion House 5095

NIVEA

— *best in
the sun!*



What is it about Nivea that makes it such an EASY line to stock? Popular in all markets? Yes. Priced to suit all pockets? Right. *A best-seller all through the year?* Absolutely! There's no "end of season" for NIVEA. You order in any quantity that suits your stock-room. No need for elaborate estimates of seasonal needs. 'Skin needs Nivea' all the year round.

... and it's NIVEA

all the year round

HERTS PHARMACEUTICALS LTD., WELWYN GARDEN CITY, HERTS.

GNT 116



THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland
and the Pharmaceutical Society of Northern Ireland*

Volume 160

August 29, 1953

No. 3836

CONTENTS

A New Factory at Belfast ...	203
Antibiotics in Feedingstuffs ...	205
Anticholinesterases ...	204
Census of Distribution ...	203
Hospital Pharmacy Forum ...	212
Leading Articles:—	
Doctors and Drugs ...	209
Overseas Trade in July ...	209
A Question of Date ...	210
Medical Abstracts ...	212
Merchandise Marks Act, 1953 ...	207
Mysoline in Epilepsy ...	211
New British Standards ...	205
Onward from Galen ...	210
Packaging Notes ...	205
Paddington Green Hospital ...	214
Pharmacies of Britain—15 ...	213
Sits. Wtd. (verse) ...	215
Topical Reflections ...	201

Births ...	202	New Products ...	207
Business Changes ...	203	Overseas News ...	201
Coming Events ...	218	Price Changes Supplement	
Company News ...	202	Print and Publicity ...	218
Correspondence ...	211	P.A.T.A. Supplement	
Deaths ...	202	Trade Marks ...	218
Information Wanted ...	208	Trade Notes ...	206
Inquests ...	203	Trade Report ...	216
Legal Reports ...	202	Wills ...	218
Marriages ...	202	World Trade ...	218

INDEX TO ADVERTISERS, Pp. 5 & 6.

EDITORIAL AND PUBLISHING OFFICES

28 ESSEX STREET, STRAND, LONDON, W.C.2

Telephone: Central 6565

Telegrams: Chemicus, Estrand, London

Branch Offices:

BIRMINGHAM, 2: 111 New Street. Phone: Midland 2921
GLASGOW: 24 Dixon Road, S.2. Phone: Pollock 4802
MANCHESTER: 344 Washway Road, SALE. Phone: Sale 4595
LEEDS: 6: 32 Wynford Rise, West Park. Phone: Leeds 78438

ANNUAL SUBSCRIPTION, which includes The Chemist and Druggist Diary and Year Book, £2. Single copies one shilling each.

GUANILLIN *now renamed . . .* GUANIMYCIN

- The new Allen & Hanburys product containing Streptomycin and Sulphaguanidine, which has been widely prescribed since its introduction under the name Guanillin has now been renamed GUANIMYCIN.
- Practitioners are finding that GUANIMYCIN meets a modern need in treating many distressing infections of the gastro-intestinal tract. It is issued as a stable dry powder, from which a palatable homogeneous suspension is made. Each bottle contains Streptomycin Sulphate 1 gramme and Sulphaguanidine 8 grammes in a suspending agent.
- INDICATIONS—GUANIMYCIN is prescribed for gastro-enteritis, bacillary dysentery, salmonella food poisoning and summer diarrhoea, in adults, children and infants.

WELLCOME INSTITUTE LIBRARY	
Coll.	WelMOMec
Coll.	
No.	

GUANIMYCIN

Trade Mark

ORAL STREPTOMYCIN SULPHATE with SULPHAGUANIDINE

In bottles to prepare 4 fluid ounces.

ALLEN & HANBURY LTD LONDON E 2

A new development in the treatment of
MOUTH AND THROAT INFECTIONS

BRADOSOL

ANTISEPTIC LOZENGES

Bradosol is a potent quaternary ammonium bactericide and fungicide, effective in extreme dilution against most pathogenic organisms causing **SORE THROATS**

- Well tolerated and virtually non-toxic
- Does not produce resistant strains
- Effective against fungi
- Does not contain potentially toxic local anaesthetics

Each lozenge contains 0.5 mg. β -phenoxy-ethyl-dimethyl-dodecyl ammonium bromide
Tubes of 20 Lozenges (2/6) Subject to the usual discounts Exempt Purchase Tax

CIBA

Bradosol is a registered trade mark Reg. user

CIBA LABORATORIES LTD · HORSHAM · SUSSEX Telephone: Horsham 1234 Telegrams: Cibolabs, Horsham 4/2

The CHEMIST AND DRUGGIST

Volume 160

AUGUST 29, 1953

No. 3836

T.U.C. and Chemical Industry LIMITED CONTROL ADVISED

THE general council of the Trades Union Congress in its interim report on the public ownership of basic industries, issued on August 26, claims that there is need for public control over the chemical industry "because of its monopolistic structure and its importance to the economy."

It recommends, however, because of difficulty in obtaining full information about the industry's operations that the "next Labour Government should institute an inquiry into the facts of the industry before a final decision is taken on the nature and extent of that control."

If public control, it continues, is to take the form of public ownership, that could be either of the whole industry or of one or more of the largest firms. Alternatively, public control might take the form of supervision by a public board of control without any change of ownership. With public ownership "it should not be necessary to acquire all the firms in the industry: ownership of Imperial Chemical Industries alone might be sufficient for the purpose of promoting development and checking possible monopoly abuses." Whether conformity to national needs can be secured within the present framework, or whether further measures are called for, are questions that can only be answered by detailed study, which it is the intention of the general council to undertake.

The report is to be submitted to the annual congress of the T.U.C. to be held in Douglas, Isle of Man, in September.

CORTISONE AND ACTH Supply to hospitals

THE Ministry of Health has informed certain hospitals in England and Wales of forthcoming changes in the scheme of distribution of cortisone and corticotrophin (ACTH). A substantial part of improved supplies of those hormones which will become available from the beginning of September will be reserved for patients suffering from diseases in which the Ministry is advised that treatment with those hormones may prolong life. Conditions so far included in that "obligatory maintenance" category are:—

- Adrenal deficiency (Addison's disease, post-adrenalectomy state, etc.)
- Pituitary deficiency (Simmond's disease, etc.)
- Lupus erythematosus (systemic forms)
- Polyarteritis nodosa
- Memphigus
- Exfoliative dermatitis
- Sarcoidosis

Supplies of cortisone and ACTH for the treatment of patients suffering from the above conditions will be available only through the hospitals which receive regular monthly allocations to which inquiries should be addressed. Such supplies cannot be sent direct either to doctors or to hospitals that are not included in the Ministry's list.

PAYMENT ON ACCOUNT

Method of calculation from August

THE Ministry of Health states that the monthly payment on account to a chemist contractor for prescriptions dispensed in August 1953 and succeeding months until further notice, is to be based on the chemist's average total cost per prescription, including container allowance, for December 1952 as certified by the Pricing Office. The payment on account is to be made on 85 per cent. of the above average rounded to the nearest penny. For new contractors the minimum payment should be at the rate of 2s. 6d. per prescription. Specially priced expensive prescriptions are to be excluded from the calculation of the average cost. To allow for charges payable by patients, the payment is to be reduced by

elevenpence three farthings for each form declared by the chemist-contractor.

BRITISH ASSOCIATION

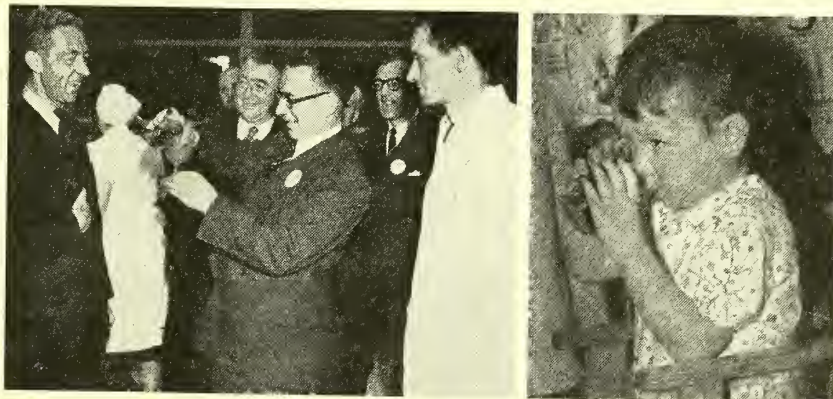
Visits to Liverpool laboratories

THE 1953 meeting of the British Association is being held in Liverpool September 2-9. Among the visits to be made by members at the meeting is one on September 8 to the Evans Biological Institute, Runcorn, where an evening conversazione has been arranged. A proportion of the 200 tickets are being reserved for chemists, and demonstrations will be given. Earlier in the day a party of thirty members of the Association is visiting the laboratories and plant of the Distillers Co. (Biochemicals), Ltd., Speke.

PRESCRIBERS' NOTES

Examples of excessive prescribing

THE July issue of "Prescribers' Notes" issued by the Ministry of Health and the Department of Health for Scotland is now being distributed to all National Health Service doctors in Great Britain. A list of actual items, all of which were prescribed on EC10 and were found unused in the home of a patient who had died is quoted. The list contains large quantities of antibiotics, forty hypodermic needles, etc. The cost to the Service of the leftovers is stated to be about £15; and the question is asked "Is this not an example of wasteful prescribing?" Attention is also directed to excessive prescribing of liver extracts, folic acid, and vitamin preparations. A list of tablets each of which costs from about



FIRST BELFAST-PRODUCED SAMPLES: Left, Lord Glentoran, who declared open the new Lucozade factory at Andersonstown, Belfast (see p. 203), receives from the managing director of the parent company (Mr. J. D. Smartt, M.P.S.) a drink from the first bottle "off the line." Right, in the Jaffa Ward at the Ulster Hospital for Children, Adrian Jennings samples Lucozade from the first day's production, which was distributed to Northern Ireland hospitals.

1s. to 3s. per tablet is given and includes certain sex-hormone, antibiotic and vitamin preparations. In another article the existence of a syndrome called "the male climacteric" is questioned. Finally prescribers are asked to send their comments on the proposal to publish a special prescribers' edition of the National Formulary, 1954, with the preparations listed in pharmacological order, to the Secretary of the Joint Formulary Committee, B.M.A. House, Tavistock Square, London, W.C.1.

RESEARCH FELLOWSHIPS

Awards for 1953-54

THE following awards of research fellowships are announced by the Pharmaceutical Society of Great Britain:—

The Wellcome Pharmaceutical Research Fellowship 1953-54 (value £400) to:—

Mr. Norman Brudney, B. Pharm. (Hons.), High Wycombe, Bucks, at the School of Pharmacy, University of London, for research in physical pharmaceutical chemistry.

Mr. Barrie Lessell, B. Pharm. (Hons.), London, E.5, in the School of Medicine of Dundee University College, for research in endocrinology.

Miss Regina Mrozowska, B. Pharm. (Hons.), London, S.W.6, at the department of physiology, Chelsea Polytechnic, for research on the adrenal gland in the control of water balance.

Mr. John Thomas, Ph.C., Manchester, awarded a fellowship for a second year, to continue at the department of pharmacy, University of Manchester, a study of the chemical synthesis of biological activity, particularly the bactericidal action of a new series of quaternary ammonium compounds.

Mr. George Lawrence Willey, B.Sc., Knaresborough, Yorks, awarded a fellowship for a second year, to continue at the University of Leeds research on the possibility of selectivity of action of nicotine-like stimulant compounds.

The Pharmaceutical Society Scholarship 1953-55 (value £350 per annum) to:—

Mr. Kenneth Albert Kerridge, B. Pharm., London, E.4, at the department of pharmacy, Chelsea Polytechnic, for work on the aspects of trace metal chelation with relationship to bacteriostasis.

The Ransom Fellowship 1953-55 (value £350 per annum) to:—

Mr. Keith Henry Palmer, Beeston, Notts, at the pharmacy department of the University of Nottingham, for research in plant chemistry with special reference to the separation of naturally occurring mixtures of alkaloids.

SUGAR ALLOCATIONS

Manufacturers' permits extended

PERMITS for sugar, syrup and treacle for manufacturing purposes which apply to the eight-week period beginning on September 6 will continue to be valid for one and one-fifth times the quantity stated on them. Permits on form PSM. 2 (a) issued by Food Offices, which would normally expire on September 5, will have their validity extended for a further eight weeks and will be worth one and one-fifth times the quantity stated on them. As before, permits coded "SEP," which provide

for replacement of sugar, syrup and treacle used in exports, will be valid only for the quantity that is stated on them.

NATIONAL INSURANCE

Unemployment benefit concession

THE National Insurance (Additional Days of Unemployment Benefit) Regulations, 1953 (S.I., 1953, No. 848) enables a person to qualify, in certain circumstances, for unemployment benefit for more than 180 days in a particular period.

LOCAL NEWS

Children's Sports at Birmingham

THE Birmingham Pharmaceutical Association held a children's sports day at Shirley on August 12. With the help given by the members of the social committee and several members of the cricket team in decorating the pavilion and organising the programme, the function was a success. The attractions included sports events (including a tug of war) Punch and Judy show, and a conjurer. The children received free teas, ices and balloons.

Phenobarbitone on Refuse Dump

AMONG bottles of tablets found at gravel pits near Heston Airport recently was one containing several hundred phenobarbitone tablets. A police search revealed other bottles of tablets, a bottle of insulin, a glass "injection tube" containing an unknown fluid and a quantity of other chemists' sundries. The pits are used as a London refuse dump. The police are investigating the matter.

NEWS IN BRIEF

War Damage Regulations.—Regulations made by the Treasury on July 14 and published as S.I., 1953, No. 1091, fixes October 1 as the date on which payment of Business Scheme claims under Part II of the War Damage Act, 1943, can begin.

Drugs for Earthquake Victims.—Among the donors of medical products for the relief of earthquake victims in the Ionian Islands (see also C. & D., August 22, p. 179) are May & Baker, Ltd., Dagenham, who authorised their agent in Greece to make a gift of Plasmosan, Sulphatriad and Thalazole.

University School Progress.—Work recently restarted on the building on the north side of Brunswick Square, London, W.C.1, that was originally intended to be the headquarters of the Pharmaceutical Society but that now belongs to London University. When finished it will house the University's School of Pharmacy and other University departments. It is expected that the School of Pharmacy section will be the first part of the building to be completed.

Food and Drugs Course.—A special course of lectures and practical work on "The Chemistry and Microscopy of Food, Drugs and Water" has been

arranged for the 1953-54 session at Chelsea Polytechnic, Manresa Road, London, S.W.3. The course, which is based on the syllabus of the examination for the Fellowship of the Royal Institute of Chemistry (branch E), will be given for first-year students on Tuesdays and Thursdays, 6-9 p.m., beginning September 29. The full course will extend over two complete sessions. Enrolment will take place on September 23 from 6-8 p.m. Further particulars may be obtained from the Principal.

Lipsticks Stolen.—Thieves removed several hundred dozen lipsticks from the warehouse of Goya, Ltd., on August 15. Lipsticks stolen included the shade "orchid" which is for export to hot countries and not suitable for use in Britain. The company state that they and the police would be grateful if any retailer would immediately communicate with his local police station if he is offered lipsticks from any unusual source. Normal deliveries of lipsticks from the company will be interrupted for two or three weeks and the indulgence of customers is requested.

Water-heaters on Hire.—All water heaters were exempted from the provisions of the Hire Purchase (Control) Order from August 21. The requirements of a minimum deposit of 33½ per cent. of the purchase price and a period of payment of the balance not exceeding 18 months are thus removed. The Board of Trade points out that the move is in accordance with the Government's measures for improving fuel economy. As the Ridley Committee stated, the use of gas and electricity requires less coal than do solid fuel appliances in providing summer or occasional hot water supplies for the average household. The Order is the Hire Purchase (Control) (Amendment No. 4) Order, 1953 (S.I. 1953, No. 1264, price 2d.).

V.D. Educational Campaign.—The Ministry of Health has notified all local authorities in England and Wales of the continued necessity to stress the desirability of prompt treatment of venereal diseases and say where it can be obtained. The decline in the number of cases has not been general; while there have been a fall in early syphilis and a slight reduction in the late cases, the post-war fall in the clinic incidence of gonorrhoea ended in 1951, and the number of cases of gonorrhoea in both sexes, and of non-gonococcal urethritis in males (almost invariably a venereal infection) has risen considerably in 1952. Two new posters have been produced for local display—size 15 x 10 in. The message of the first is "Infection Car Last for Years with no Visible Signs," and of the second, "If Not Skilfully Treated in its Early Stages."

SPORT

Bowls.—THE ULSTER CHEMISTS' BOWLING CLUB were beaten by the Motor Traders by 64 shots to 57 in their match at the Mossley Green on August 19. Skips and scores were:—Chemists, J. Caldwell 16, H. McRoberts 19, C. S. Ritchie 13, N. Girvan 9; motor traders G. Wolsey 12, W. Chisholm 19, J. Hayes 19, R. Cooke, 19.

OVERSEAS NEWS

CEYLON

Staff Employment Conditions

THE Government of Ceylon has imposed an annual levy of 250 rupees for each registration of a Ceylonese trader. The latest regulations which are designed to tighten up conditions governing the employment of staff, provide that not less than 50 per cent. of staff whose emoluments are 500 rupees monthly and over should be citizens of Ceylon. Not less than 75 per cent. of staff whose emoluments are less than this figure should also be Ceylonese. The regulations state that an individual trader should not be an employee, shareholder, partner or director of, or have any interest direct or indirect in any non-national import, export, indent, retail or wholesale business in Ceylon. The majority of directors in private companies must also be citizens of Ceylon. In the case of public companies, the company should be incorporated in Ceylon under the Companies Ordinance and its shares quoted on the local share market and the majority of its directors or partners in business should be Ceylon citizens. The same conditions regarding staff and directors' interests in non-national firms apply. Importers who had already been registered as Ceylonese registered importers were required to apply for fresh registration before the end of July.

AUSTRALIA

Thallium Poisoning

A NUMBER of cases—and some suspected cases—of thallium poisoning have been reported from Australia. The Minister of Health for New South Wales has rejected a recommendation by a State Poisons Advisory Committee that thallium for the destruction of vermin, etc., in 1.8 per cent. solution in bottles of 1 fl. oz. should be available, "with safeguards," from grocers or other shops. The Minister wants thallium salts to be sold only through chemists' shops and to be signed for at each sale as in fact they are sold in the States of Victoria and Queensland.

University takes out a Patent

SYDNEY University is taking out provisional patents on a new cardiac drug—said to be obtained from digitalis—the discovery of which was announced recently. Work leading to the isolation of the drug has been directed by Professor R. H. Thorp (professor of pharmacology at the University). The preparation, of which 0.01 gm. has been made, has been tested on isolated hearts with encouraging results.

CANADA

Convention in Winnipeg

THE 1953 Convention of the Canadian Pharmaceutical Association was held in Winnipeg, Manitoba, August 17-20. Speakers at the opening session included Colonel C. P. Smith, No. 1 Central Medical Equipment Depot of the Canadian Army, Ottawa, on "The Status of the Pharmacist in the Armed Forces."

TOPICAL REFLECTIONS

By Xrayser

Cultivating Its Readers

Your description (p. 188) of the inset supplied with the latest report of the Chemical Research Laboratory at Teddington, "commendable and well thought-out," is fully deserved. One hesitates to assert that this is the first instance of a Government department asking for comment—post free, in this case—on an official publication; but I have no recollection of any earlier attempt to enlist the co-operation of those who purchase and, we may hope, study its pages. The questions that you have quoted from the inset are models of their kind—clear, comprehensive, and free from a patronising attitude. The report itself (summarised on p. 181) describes important work done during the twelve months reviewed. Chemotherapy and microbiology have furnished subjects for investigations which, without yielding sensational discoveries, add to the sum of knowledge. One fact noted is that the national collection of industrial bacteria "continues to render useful service to industrial and other laboratories." The work of the section concerned has been further extended by its work, on behalf of the World Health Organisation, in distributing "official" cultures of antibiotic-producing organisms. This report, like others from the same source, shows that the Department of Scientific and Industrial Research has justified the sum expended on it since it originated during the war of 1914-18.

Pressure at the Dispensing Counter

The vivacious letter of "Re-qualified" (p. 195) touches, among other things, on the situation in pharmacies when "the bulk of the professional dispensing work is concentrated into limited, after-surgery hours." In another part of the letter a reference is made to supplies of "ready-made galenicals, concentrated solutions, useful short-cut dispensing adjuncts and . . . all those N.F. mixtures that can be prepared in bulk and which are such wonderful time-savers on a busy rota night in winter, when one can get a large and variegated slice of all the pharmaceutical work in the town for a reward of seven and sixpence." Ready-made galenicals and concentrated solutions may be an easy way out of a difficulty when prescriptions arrive in shoals, but such expedients are not conducive to good dispensing. Under pressure of this kind a dispenser runs the risk of having a compounded medicine found deficient by an analyst. The proprietor or assistant taking in N.H.S. prescriptions at the counter can lessen this risk by spacing out the documents, allowing for each item the number of minutes that experience and the circumstances suggest as reasonable. By adopting that practice dispensers are less likely to be caught in some inadvertence.

Records Preserved

Mr. Laurence Dopson has tapped a valuable source of information by availing himself of records in the National Register of Archives (pp. 191-93). Work in this field is, like many other kinds of exploration, often laborious but at the end rewarding. His article on chemists' records will be read with great interest, especially by those old enough to remember pharmacies that have lately disappeared or have been remodelled. As he points out, the Council for the preservation of Business Archives is associated with the National Register of Archives; between them, these two institutions should be able to save permanently for reference much that would otherwise be destroyed. I was not aware that John Taylor's pharmacy, the first home of Cimolite, was once in Oxford Street; though I am not prepared to assert that it was not, Baker Street, on the opposite side of Portman Square, was where it was situated as long ago as I remember. In the eighteen-nineties (to the best of my recollection) Brand & Co. had a dépôt for their essences in a turning out of Hertford Street, Mayfair, though it may be that no manufacture was carried on there. Further points of this kind will no doubt be noticed by other readers. I hope to see more results from Mr. Dopson's researches.

COMPANY NEWS

Previous year's figures in parentheses

INNOXA (ENGLAND), LTD.—Dr. Kenneth Alberman, M.A., A.R.I.C., and Mr. Michael Alberman have been appointed to the board.

BEECHAM GROUP, LTD.—A first interim dividend of 17 per cent., less tax, on the deferred shares of the company for the year ending March 31, 1954, is announced. This dividend is the same as the first interim dividend paid in respect of the year ended March 31.

VITAMINS, LTD.—The offer to shareholders of 1,037,333 ls. shares at 1s. 9d. each (see *C. & D.*, August 1, p. 110), has been heavily over-subscribed. Excess applications up to 4,000 shares have been allotted up to 100 shares; from 4,000 to 100,000, 500 shares and over 100,000, 1,000 shares.

ASPRO, LTD.—The full accounts show an increase of £115,924 to £701,245 in the group's trading profit. As announced (see *C. & D.*, July 25, p. 78) group net profit was £348,960 (£265,712). The chairman (Mr. M. A. Nicholas) states that exports were reduced owing to import restrictions but home sales reached an all-time record. The company now have eleven plants throughout the world.

HODDERS, LTD.—Group trading profit for year ended March 31 was £69,955 (£63,405). After tax of £33,849 (£34,890), etc., the balance was £24,160 (£17,903), plus excess receipts for National Health Service dispensing for previous year over estimate, £7,703 (£7,452) and unrequired tax, £4,794 (nil). Final dividend as previously announced (*C. & D.*, July 25, p. 78) brings the total distribution for the year to 70 per cent. (60 per cent.). The directors state that the volume of sales has shown an increase and that since the end of the financial year a further 120,840 ls. ordinary shares have been issued for cash at a premium of 5s. per share, ranking for the final dividend and bonus recommended for 1952-53. They also report that a controlling interest has been acquired in Strode, Cosh & Penfold, Ltd., retail chemists, Bristol, in the current year.

New Companies

P.C. = Private Company; R.O. = Registered Office

COOPER & GOLDIE, LTD. (P.C.).—Capital £1,000. To carry on the business of wholesale and retail chemists and druggists, etc. Directors: Leslie C. Cooper, M.P.S., and Jane H. Goldie. Solicitors: Mullis & Peake, Romford, Essex.

PAUL A. DANIELS, LTD. (P.C.).—Capital £100. To carry on the business of processing and bottling of linseed oil, turpentine and other liquids, etc. Directors: Paul A. Daniels (chairman) and Beatrice A. Daniels. R.O.: 59 Sloane Street, London, S.W.1.

HALUS MINERALS, LTD. (P.C.).—Capital £1,000. To acquire the business of manufacturing and selling veterinary medicines, etc., formerly carried on by Frederick C. Edwards at Sudbury, Suffolk. Directors: F. C. Edwards and Derek N. Cooper. R.O.: Borehamgate House, Sudbury, Suffolk.

PHARMACEUTICAL EXPORTS, LTD. (P.C.).—Capital £100. Subscribers: Ralph Ward Dixon and Joyce D. Bishop. R. W. Dixon is the first director. R.O.: 3 Oxford Street, London, W.1.

DOROTHY POWDER PUFF CO., LTD. (P.C.).—Capital £500. To carry on the business of manufacturers of and dealers in powder puffs, toilet goods, etc. Directors: Phyllis V. Littler and William A. Littler. R.O.: 5 St. Nicholas Street, Leicester.

PAXO (GREAT BRITAIN), LTD. (P.C.).—Capital £1,000. To carry on the business of manufacturers, sellers, importers, exporters and growers of spices and herbs; chemists, druggists, etc. Subscribers: William A. Innes, and William Tricker. First directors are to be appointed by the subscribers. Solicitors: Neish, Howell & Haldane, 47 Watling Street, London, E.C.4.

CLAYTON DYESTUFFS CO., LTD. (P.C.).—Capital £200,000. To carry on the business of manufacturers, importers, exporters of and dealers in benzol, dyestuffs, acids, alkalis and other chemicals, pharmaceutical preparations, etc. Directors: Alfred E. Peak, Tyrell M. Willcox and Gotthelf Kuhn (all directors of Clayton Aniline Co., Ltd.). R.O.: 505 Ashton New Road, Manchester, 11.

TOPMARK, LTD. (P.C.).—Capital £1,000. To acquire the business of a manufacturers' agent now carried on by William Seach, at 95 Second Avenue, Newcastle-on-Tyne, as Essentials Co., and to carry on the business of family, manufacturing, and dispensing chemists and druggists, etc. Directors: William Seach and Doris M. Seach. R.O.: 95 Second Avenue, Newcastle-on-Tyne, 6.

LEGAL REPORT

Pharmacy Act Fines.—Announcing fines and costs totalling £12 14s. which Torpoint magistrates court was imposing on August 18 on Frederick Herbert Bassett, grocer, 15 Ormond Terrace, Torpoint, who had pleaded guilty to unlawfully selling poison the label of which did not bear his name and address, and to having sold poison when not a listed seller, the chairman said: "We often read of people being poisoned and we must not make it easy for such things to happen." For the Cornwall County Council it was stated that defendant's premises were visited on June 12 and a bottle of cloudy ammonia bought. Mr. Henry Fisher, Bodmin, an inspector under the Pharmacy and Poisons Act, 1933, then entered the shop and asked to see Mr. Bassett. He was told that Mr. Bassett was unwell, and Mrs. Bassett, when questioned, agreed that no application form for re-registration as an authorised seller of poisons had been submitted. When it was pointed out by the inspector that the bottle of ammonia did not bear the name and address of the defendant Mrs. Bassett replied: "We did not know it should be there." When defendant failed to re-register

in May he was sent two reminders, and on May 18 was notified that his name had been struck off the list. The County Council had done everything possible to make it more than easy for defendant to know just what his position was and what he needed to do if he wished to sell poisons.

BIRTH

McLENNAN.—At South Derran, Woodend, Cardenden, Fife, on August 17, to Margaret, wife of Charles Pearson McLennan, M.P.S., a daughter.

MARRIAGE

EWART-SCHOFIELD.—At St. Mary's Church, Worsborough, Yorks, on August 15, James Bissett Ewart, Ph.C., 6 Dalhousie Avenue, Poltonhall, Bonnyrigg, Midlothian, to Irene Kathleen Schofield, Worsborough Bridge, Yorks.

DEATHS

DOLPHIN.—On August 11, Mr. Gilbert Joseph Dolphin, M.P.S., 50 Alcester Road, Redditch, Worcs, aged sixty-seven.

GILLIBRAND.—On August 17, Mr. Oscar Gillibrand, M.P.S., High Street, Billingshurst, Sussex, aged sixty-three.

McADAM.—On August 8, Mr. Alexander McAdam, M.P.S., 171 King Street, Castle Douglas, Kirkcudbrights, aged forty-four.

PLOWRIGHT.—At Hove, on August 18, Mr. John Plowright, Ph.C., Dykelands, Meadow Close, Tongdean Road, Hove, 4, aged eighty-four.

Xrayser writes: Mr. John Plowright and I first became friends when, like many other recently qualified pharmacists, he was gaining experience in a high-class West End pharmacy. Later we occasionally met at pharmaceutical gatherings and exchanged news. His accomplishments as a first-rate dispenser included handwriting as elegant as any master of penmanship could desire.

POOL.—At his home, 11 Corrou Road, Newlands, Glasgow, on August 16, Mr. Alexander Smith Pool, L.R.C.P., L.R.C.S., L.R.F.P.S., M.P.S. Dr Pool qualified as a Chemist and Druggist in 1914, before studying medicine, and was in practice as a doctor in Glasgow for about twenty years. He took an active interest in the medical world, and was a member of the Cohen Committee and of the Glasgow Executive Council. He was a past-president of the Glasgow and West of Scotland Branch of the British Medical Association, and a past-chairman of the Glasgow Division of the Association, and of the former Glasgow Panel Committee. Dr. Pool is survived by his widow and one daughter.

SPURWAY.—On August 1, Mr. William James Spurway, Ph.C., Perran Bay Hotel, Perranporth, Cornwall, aged seventy-seven. Mr. Spurway was a life member of the Pharmaceutical Society.

WINCHESTER.—Recently, Mr. Robert Guthrie Winchester, M.P.S., 57 Fyfe Park Terrace, Port Glasgow, Renfrews. Mr. Winchester qualified in 1913.

BUSINESS CHANGES

MR. JAMES O'HARA, M.P.S., has acquired the pharmacy of the late Mr. W. W. Urquhart, M.P.S., at 978 Dumbarton Road, Whiteinch, Glasgow.

LEDA CHEMICALS, LTD., are removing to Eley Estate, Angel Road, Edmonton, London, N.18 (telephone: Edmonton 6322) on September 1.

BOOTS, LTD., have purchased the business of Mr. Ernest E. Roberts, M.P.S., 135A Caerleon Road, Newport, Mon. Mr. Roberts has retired because of ill-health.

ULTER (BRADFORD), LTD., and The Teasdale Chlorodyne Co., are removing to 12 Bank Street, Wibsey, Bradford, Yorks, on September 1. Telephone: Low Moor 244.

LIVERPOOL CO - OPERATIVE CHEMISTS, LTD., state that from August 31 their address for representatives, correspondence and goods will be Chemist Warehouse, Lockerby Road, Fairfield, Liverpool, 7. Telephone: Anfield 1024.

Appointments

INNOXA (ENGLAND), LTD., 1 Eden Street, London, N.W.1, have appointed Mr. R. A. Lodge their export director, and Mr. A. J. Dermott, M.P.S., their home sales manager.

MEGGESON & CO., LTD., Llewellyn Street, London, S.E.16, have appointed Mr. Alexander Skinner, M.P.S., 10 Lauriston Farm Road, Davidson's Mains, Edinburgh, 4, their representative in Scotland.

INQUESTS

Killed by Explosion.—Sodium chlorate and charcoal bought from a chemist were used in a home-made bomb that killed a sixteen-year-old boy at Taunton recently, it was revealed at an inquest at Taunton. A verdict of accidental death was returned.

Child Takes Fifty Tablets.—At an inquest at Newton Abbot, Devon, recently on a three-year-old boy who had died after swallowing fifty medicinal tablets to which he had gained access a verdict of accidental death was returned. The tablets had been kept in a cupboard and the coroner exonerated the mother from blame.

Carbon Dioxide Accidentally Given.—At an inquest at Birmingham on August 7 on a man who had died during an operation at Dudley Road Hospital, Birmingham, evidence was given to show that the man had received accidentally carbon dioxide. A consultant anaesthetist who was present at the operation said that the tap on a cylinder of carbon dioxide stood out further than the other two taps on the anaesthetic machine, and required only a 45° turn to put it full on. After the operation had started she checked the apparatus three times before she discovered that it was full on. The chief coroner's officer said that, while demonstrating to him how she had assisted at the operation, Dr. Holt backed against the machine, touched and turned on the tap without knowing that she had done so. A verdict of accidental death was returned.

A NEW FACTORY AT BELFAST

A NEW factory for Lucozade, Ltd. at Andersonstown, Belfast, was opened by Lord Glentoran, M.P. (Parliamentary Secretary to the Northern Ireland Ministry of Commerce), on August 19, in the presence of, among others, the president of the Pharmaceutical Society of Northern Ireland (Mr. W. H. Boyd), and the president of the Ulster Chemists' Association (Mr. C. L. Gordon-Rattie). At a luncheon which followed the opening, Mr. J. D. SMARTT, M.P.S., (managing director of the company), said the factory was Lucozade's first outside London, and the first of many which they hoped to see going up all over the world. They visualised the time when even greater quantities of Lucozade would be made in Northern Ireland, perhaps supplemented by the products of some of the associated companies. Mr. Smartt paid a tribute to the co-operation of the Northern Ireland Government in the setting up of the factory, and said the whole of the first day's production was being given to hospitals in Ulster to enable 8,000 patients to enjoy a glass of the invalid tonic. Pictures, p. 199.

LORD GLENTORAN said it was gratifying that the Lucozade company should have decided to erect and equip the factory at its own expense. He hoped they would persuade other members of the Beecham group that Northern Ireland had many attractions for light industry.

The Andersonstown factory is described as one of the most up-to-date in Ulster. In addition to manufacturing, bottling and packing Lucozade in assembly line fashion, it has a laboratory for testing and research. The forty employees are expected to raise production to eleven tons a day. Men holding key positions spent several months training at the Lucozade factory in London before taking over.

Lucozade was first produced in the early 1930's by a Newcastle-on-Tyne pharmacist searching for a palatable means of presenting glucose. Many people for whom glucose is prescribed, but who find it rather sickly, take readily to the fresh flavour of Lucozade. Plans are at an advanced stage for a factory in Toronto, Canada.

CENSUS OF DISTRIBUTION

Official Report Gives Details for 1950

THE full report of the Board of Trade's Census of Distribution and Other Services for 1950 was published by H.M. Stationery Office on August 27 (price 7s. 6d.). The report, in tabular form, gives particulars of retail and service establishments in each county in Great Britain, and in all the towns within the county, excluding only towns with less than 2,500 inhabitants and also for the remainder of the county excluding the towns. For Great Britain as a whole, Scotland, Wales, and the "standard" regions of England there are tables showing particulars for each type of retail establishment for which the census provided

details. Information relating to dispensing chemists is given below in table I. Table II gives similar information for a selection of towns or cities. A column giving the amounts of wages and salaries paid is substituted for the number of persons employed.

The Board point out that the figures given do not make allowance for the traders who did not furnish census returns. It is estimated that the figures cover 91 per cent. of establishments which in turn cover 95 per cent. of the total trade.

Preliminary information on the census was published earlier in the year (see C. & D., January 24, p. 77).

Table I

REGIONS	PHARMACIES	SALES	PERSONS ENGAGED	
			FULL-TIME	PART-TIME
ENGLAND		£'000		
Northern	741	7,898	3,490	453
E. and W. Riding	1,120	11,077	4,700	890
N. Midland	802	9,366	3,961	784
Eastern	671	8,519	3,422	615
London and S.E. -				
(a) Greater London	2,384	27,945	10,807	2,378
(b) remainder	804	9,551	4,225	764
Southern	744	8,768	3,927	697
South-western	894	9,999	4,521	796
Midland	1,048	12,005	4,981	978
North-western	1,949	18,707	8,175	1,477
WALES	722	6,894	2,954	482
SCOTLAND	1,607	13,611	6,415	1,051

Table II

TOWN OR CITY	PHARMACIES	SALES	SALARIES
		£'000	£'000
Birmingham	313	3,218	431
Bournemouth	82	856	97
Cambridge	28	527	62
Cardiff	81	968	109
Edinburgh	195	1,617	188
Glasgow	317	2,989	381
London, City of	33	758	92
Manchester	226	2,434	312
Newcastle-on-Tyne	84	1,158	154
Torquay	28	352	41

ANTICHOLINESTERASES

Their chemistry and mode of action

AT a symposium organised earlier in the year under the joint auspices of the Pharmaceutical Society and the fine chemicals group, Society of Chemical Industry, discussion ranged over the chemical features that conferred inhibition, and the mode of action of the substances, both *in vitro* and *in vivo*.

Ordeal Beans

THE CHAIRMAN (Professor J. H. Gaddum (University of Edinburgh)), reviewed work on the anticholinesterase group. Eserine or physostigmine, the first known anticholinesterase was, he said, obtained from the ordeal beans used in Old Calabar for the trial by ordeal of witches. In public the accused swallowed the beans and if vomiting resulted the prisoner was acquitted. The beans were brought to Europe in 1840 and first investigated by Sir Robert Christison at Edinburgh. Fraser introduced the drug into medicine, purified the alkaloid and called it eserine (1870), though he was anticipated in publication by Jobst and Hesse (1864) who called it physostigmine. It was soon recognised that most of the effects were antagonistic to those of atropine. The chemical structure of eserine had been established by Stedman and Barger in 1925. Dr. and Mrs. Stedman showed that the action was due to competition with acetylcholine, and proposed that the enzyme present in horses' serum, and which acted specifically on choline esters, should be called cholinesterase. Some organic phosphates had been shown to be powerful anticholinesterases. In Britain work on chemical warfare agents during the 1939-45 war led to the discovery of the anticholinesterase activity of di-isopropyl phosphorofluoridate (DFP) and that the effect on cholinesterase was irreversible. Professor Gaddum pointed out that anticholinesterases could be divided into three distinct groups: 1, drugs allied to eserine, which combine reversibly with the enzyme; 2, organic phosphates whose action is irreversible *in vitro*; 3, substances not active in themselves but converted into active organic phosphates *in vivo*.

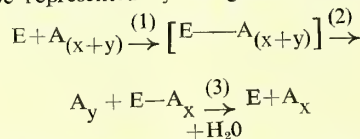
MR. A. H. FORD MOORE (Chemical Defence Experimental Establishment, Porton), outlined the development of phosphorus-containing anticholinesterases. At the time of discovery of DFP, Schrader in Germany had found certain derivatives of phosphoramidic acid to be insecticidal, and that ethyl dimethylphosphor-amidocyanidate (Tabun), though not insecticidal, was highly toxic to man. Schrader also found that tetra-ethyl pyrophosphate (TEPP) was highly insecticidal. The rapid hydrolysis of TEPP led Schrader back to insecticides of the conversion type, such as octamethylpyrophosphoramide (Schradan). Mr. Ford Moore pointed out that a residue, $RR'P(O)-$, attached to an "acyl" group, as suggested by Schrader for insecticidal activity, was essential. R was preferably alkoxy, whilst R' could be alkylamino,

alkoxy, methyl, etc. The "acyl" group could be fluoride, cyanide, or another phosphate radical. When the compound came into contact with the enzyme, the "acyl" group was removed and the residue attached to a specific part of the enzyme.

MR. A. W. D. AVISON (Roche Products, Ltd., Welwyn Garden City) dealt with anticholinesterases containing at least one ammonium group and reviewed work in that field.

In the discussion DR. K. BULLOCK confirmed the present-day view of the specificity of aromatic quaternary ammonium compounds with carbamate or phosphate or other phosphorus-containing groups as the most potent anticholinesterases. In summing up the first session, PROFESSOR F. BERGEL (Chester Beatty Research Institute, Fulham, London, S.W.3) pointed out that the overall impression gained was of the presence of two sites in the cholinesterase with which the drugs made contact: an anionic site that reacted with the quaternary ammonium groups of the inhibitors, and an esteratic site, which combined with the O-acetyl of acetylcholine or with the carbamate groups of the "stigmines."

From a session on the mode of action of anticholinesterases *in vitro* the general theme emerged that the steps involved in the hydrolysis of substrates and the inhibition by reversible inhibitors such as prostigmine, etc., or by organo-phosphorus compounds might be represented by the general reaction



(E=cholinesterase; A=substrate, etc.; x and y=acid and alcohol groups of ester).

Experimental Difficulties

After pointing out experimental difficulties in studying the inhibition of physostigmine, prostigmine and related compounds, DR. F. HOBBIER (Middlesex Hospital Medical School) showed that those inhibitors were hydrolysed at their ester group. DR. W. N. ALDRIDGE (Toxicology Research Unit, Serum Research Institute, Carshalton) showed that organo-phosphorus inhibitors were not specific inhibitors for cholinesterase but general inhibitors for enzymes possessing carboxylic esterase activity. DR. B. A. KILBY (Medical School, University of Leeds) discussed the metabolic conversion of certain organo-phosphorus compounds into anticholinesterases. Schradan had little *in vitro* activity against cholinesterase but after injection into mammals the animal died with cholinergic symptoms. Evidence was given that Schradan converted *in vivo* into a powerful anticholinesterase and the theory was examined that that conversion involved amine oxide formation. DR. H. BLASCHKO (University of

Oxford) summed up the session.

At the third session DR. W. FELD-BERG (National Institute for Medical Research) said that the anticholinesterases must have side actions not due to inhibitors of cholinesterase. Although, too, the most striking effects resulting from inhibition of cholinesterase were those due to accumulation of acetylcholine, there might be other changes, resulting from the fact that the products of hydrolysis—choline and acetic acid—were no longer available at the sites of acetylcholine liberation. The symptoms of inhibition of cholinesterase might vary according to the properties of a given anticholinesterase.

DR. H. CULLUMBE (Chemical Defence Experimental Establishment, Porton) pointed out that failure of respiration was the predominant factor for the lethal effects of anticholinesterases. DR. J. M. BARNES (Toxicology Research Unit, Serum Research Institute, Carshalton) reported on the effects of repeated doses of some anticholinesterases in anaesthetised dogs, rabbits and rats. The animals might be saved from the effects of an otherwise lethal dose of Paraxon by a short period of artificial respiration, and would then withstand further doses of the inhibitor without respiratory effects. DR. W. L. M. PERRY discussed experiments which led him to believe that the choline formed from the acetylcholine released by preganglionic nerve stimulation was immediately used to replenish by resynthesis the stock of acetylcholine available for release. In the presence of eserine, hydrolysis of acetylcholine was prevented. DR. L. M. PICKFORD described the use of DFP to obtain information about the chemical transmission of nerve impulses. When injected amongst the supraoptic cells of dogs, DFP caused a transient diabetes insipidus, during which intravenous injections of acetylcholine did not produce their usual oliguric effects. Dr. Pickford concluded that acetylcholine was the transmitter of at least one group of nerve fibres impinging on the supraoptic nerve cells. DR. A. TODRICK described the effects of thirty antagonists of acetylcholine on the cholinesterases of rat tissue. Curariform drugs were mainly inhibitors of the true parasympatholytic drugs mainly of the pseudo cholinesterase type.

More Answers Wanted

Summing up, SIR CHARLES LOVATT EVANS (Chemical Defence Experimental Establishment, Porton) pointed out that the biochemical studies had not provided all the answers that were wanted. The classification of enzymes concerned in the hydrolysis of acetylcholine and other esters was puzzling and it was clear that the distinction into true- and pseudo-cholinesterases by no means gave the full picture. He would like to see a clear distinction between the effects of agents that paralysed either the true or the pseudo type of cholinesterase.

Opening the fourth session THE

CHAIRMAN (Professor G. R. Cameron University College Hospital Medical School) said that the investigation of chronic toxicity was still one of the most difficult and uncertain toxicological problems that clinical changes were almost invariably unpredictable, and that the nature of chronic toxic action was insidious. The subject was made difficult because of the lack of a short-cut to the assessment of toxic effects. At present there had to be prolonged animal experiments or astute clinical diagnosis.

Chronic Effects

DR. A. WILSON (University of Sheffield) discussed the chronic muscarinic, nicotinic and central effects of DFP in normal subjects, and compared the effects of DFP and neostigmine in patients with myasthenia gravis and the changes accompanying those effects in the cholinesterase levels of blood. DRs. P. L. BIDSTRUP and J. A. BORNELL gave a detailed description of the paralysis that occurred in patients poisoned by the two cholinesterase inhibitors, tri-*o*-cresyl phosphate (TOCP) and bis-(mono-isopropylamino) fluoro-phosphine (Mipafox). TOCP poisoning had been known for many years and was the cause of the ginger paralysis that occurred in the United States of America in 1930. Several thousand people were affected, and there were some deaths. In those cases gastrointestinal symptoms were followed, after a latent interval of two to three weeks, by peripheral neuritis, and led in many cases to permanent disability caused by lesions in the central nervous system affecting particularly the pyramidal and cerebellar tracts of the spinal cord. Both TOCP and Mipafox were selective inhibitors of pseudo-cholinesterase, and were found to cause demyelination. The lesions in the central nervous system of man in Mipafox poisoning were confined to the pyramidal tracts, whereas in TOCP poisoning the spino-cerebellar tracts were affected as well, and there were lesions in the cerebellum. DR. R. H. S. THOMPSON (Guy's Hospital Medical School, London) showed that the paralysis produced by TOCP was not due to inhibition of true cholinesterase at the motor endplate. Demyelination could not be fully explained by inhibition of pseudo-cholinesterase because, using other selective inhibitors of that enzyme, demyelination did not occur.

In the discussion, DR. G. S. HARTLEY pointed out that the two organo-phosphorus compounds with which the late development of paralytic effects was most clearly established were at opposite ends of the scale of water and oil solubility. Mipafox was the most hydrophilic of all the compounds examined, and TOCP the most lipophilic. Dr. Aldridge's indication that TOCP was first converted *in vivo* to another compound might throw some light on that apparent anomaly.

1953-54 Syllabus

The subjects to be dealt with at meetings of the Fine Chemicals Group of the Society of Chemical Industry during the 1953-54 session include "Paper chromatography and electrophoresis," "Chloramphenicol," and "Medical research and fine chemicals."

ANTIBIOTICS IN FEEDINGSTUFFS

A JOINT announcement by the Agricultural Departments of the United Kingdom on August 19 states that specimens of the forms of label approved for use with feedingstuffs containing antibiotics (see *C. & D.*, August 15, p. 153) have been sent to the associations representing merchants and manufacturers but should any individual manufacturer require information about the labels he should get in touch with the appropriate Agricultural Department. Details of the specimen labels are shown below:—

Label for Antibiotic Supplements

NAME OF PRODUCT	
Penicillin } Aureomycin }	Supplement
For addition to the food of table poultry and pigs other than breeding stock.	
CONTENTS	
This <i>a</i> contains units of	
<i>b</i> {penicillin aureomycin }	the equivalent of ...gm.
of <i>b</i> {procaine benzylpenicillin aureomycin hydrochloride in lb. of (name of diluent)	
The contents of this <i>a</i> , if stored as directed will retain this amount of	
<i>b</i> {penicillin aureomycin }	until
Store in a cool, dry place. Keep container closed after use.	
RATE OF USE	
Pigs lb. of supplement in	cwt. of food.
Poultry lb. of supplement in	cwt. of food.
<i>b</i>	
See (enclosed leaflet for further details below)	
DO NOT FEED TO RUMINANTS DO NOT FEED TO STOCK USED FOR BREEDING	
Name and address of manufacturer	

- a* Description of container, e.g. tin, carton inserted here.
b Alternative not required is deleted.

Tablets in "Wells."—John Dickinson & Co., Ltd., paper makers, Apsley Mills, Hemel Hempstead, Herts, produce a transparent moulded acetate container with six "wells" to hold any type of tablet.

Weaknesses Located.—A problem submitted to Printing, Packaging and Allied Trades Research Association, Leatherhead, Surrey, concerned a case of fluid pharmaceutical products, out of which two bottles out of twelve had arrived broken, and the remainder were contaminated with the contents of the broken bottle. The cases in use were made from a flute-corrugated board having facings of kraft and fitted with a low-grade corrugated board liner. The case was stripped of its internal fittings, fitted with a reinforced liner, top and bottom pads, and half-slotted interlocking partitions, and repacked. When it was dropped three times from a height of 2 ft., only one bottle (defective) broke.

Leak-tight Nozzle.—Fewer complaints of leakages of creams into car-

Label for Feedingstuffs Containing Antibiotics

<i>a</i> NAME OF PRODUCT	
<i>b</i> {For pigs other than breeding stock For table poultry	
Not less than <i>c</i> units of <i>b</i> {penicillin aureomycin }	
the equivalent of <i>c</i> gm.	
of <i>b</i> {procaine benzylpenicillin aureomycin hydrochloride per ton	
were incorporated in this feedingstuff at the time of manufacture.	
The <i>b</i> {penicillin aureomycin }	
was incorporated in the feedingstuff during the period of potency guaranteed by its supplier. In the present state of knowledge no guarantee can be given of the effective life of the antibiotic after incorporation in the feedingstuff.	
STORE IN A COOL, DRY PLACE AND USE AS SOON AS POSSIBLE	
Rate of use (concentrates only) ...d...	
DO NOT FEED TO RUMINANTS DO NOT FEED TO STOCK USED FOR BREEDING	
Name and address of manufacturer.	

a This heading may include manufacturer's trade name, and must describe the type of feedingstuff (one of the six categories given under *c* below) and the kind of animal to which it is intended to be fed, e.g. "Pig starter food—for pigs up to weeks old," "Pig fattening ration—for pigs over weeks old or over lb. weight."

b Alternative not required is deleted.

c Minimum quantity of antibiotic agreed for incorporation in the type of feedingstuff described under *a* is inserted. The agreed minimum quantities (expressed as the equivalent weight of procaine benzylpenicillin or aureomycin hydrochloride added per ton of feeding-stuff) are:—

- Pig weaner ration 5 gm.
- Pig starter ration 10 gm.
- Pig fattening ration 4 gm.
- Pig balancer ration 8 gm.
- Chick and turkey ration 4 gm.
- Poultry fattening ration 4 gm.

d Statement of the recommended rate of addition of the concentrate.

PACKAGING NOTES

tons will need to be placed by retailers if a tube nozzle patented by Universal Metal Products, Ltd., Salford, comes into general use. Its feature is that the nozzle projects about $\frac{3}{8}$ in. beyond the thread and fits into a shaped recess in the cap, which is screwed down tightly against it, rendering a washer unnecessary.

BRITISH STANDARDS

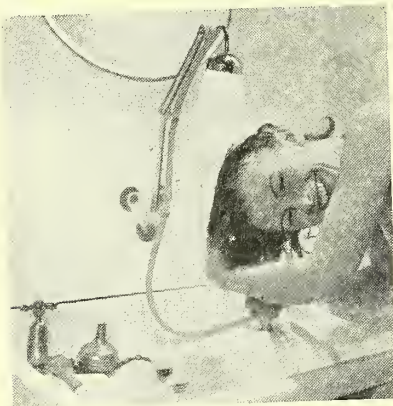
COPIES of the following new British Standard are available, at the prices shown, from the British Standards Institution, Sales Branch, 2 Park Street, London, W.1.

DIMENSIONS OF COLLAPSIBLE TUBES WITH SHORT SCREWED NOZZLES (B.S. 2006, 1953, price 2s. 6d.): The Standard relates to tubes for a wide range of pastes and semi-liquid materials such as medical and toilet preparations. The standardisation of collapsible tubes with other types of nozzles is being considered, and if practicable, the standard will be extended.

TRADE NOTES

Tax Changes.—Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, announce that Sonalgin in packs of twenty-five, 100 and 500 tablets become exempt from purchase tax on September 1. The package of twelve tablets is not exempt.

Rinsing after Shampooing.—To enable the hair to be adequately rinsed after home shampooing a bathroom shower fitting is essential. The advantage of the Figaro shower supplied by J. P. Fielding & Co., Ltd., Willow Bank Works, Whit Lane, Salford, 6, is that it is easily fixed and removed with a suction base plate that adheres to tiles, washbasins or baths or may



be fixed in a permanent position by means of a slot. Designed to fit most standard taps, it is constructed of anodised aluminium with 7 ft. of polythene tubing and heavily chromium-plated rose. Pharmacies are one outlet of distribution.

Freely Available.—Distillers Co. (Biochemicals), Ltd., Speke, Liverpool, 19, announce that Distafed penicillin supplement, in containers of 1 lb., 10 lb. and 50 lb. is now freely available for sale without prescription. Orders should be sent to wholesalers.

Triple Sulphonamide.—Ward, Blenkinsop & Co., Ltd., 6 Henrietta Place, London, W.1, have recently introduced a tablet triple sulphonamide containing sulphadiazine, 0.185 gm.; sulphathiazole, 0.185 gm.; and sulphamerazine, 0.130 gm.

Display Outer.—A display outer now available from Dalmas, Ltd., Junior Street, Leicester, for their Dalmas elastic first-aid dressing holds 1 doz. containers. Its colours are the reverse of the grey and magenta of the individual container.

Holiday Closing.—The Woodford offices of the Vernon Porter Organisation are closing for holidays on August 29, reopening September 14. Urgent correspondence will be dealt with by Mr. Vernon Porter at Disblair, Fourth Avenue, Frinton-on-Sea, Essex.

Announced Too Soon.—By inadvertence a paragraph concerning a change of pack of Guest's Sure Shield laxatives was prematurely inserted in these columns, and readers should await an announcement by the manufacturers in

the advertisement pages. Apologies are offered to Messrs. Thomas Guest & Co., Ltd. for any embarrassment caused to them by publication of the paragraph.

Changes of Name.—From September 1, the multivitamin preparation Vi-Daylene of Abbott Laboratories, Ltd., Wadsworth Road, Perivale, Middlesex, is being renamed Vi-Daylin, and Desoxyn and Nembutal are being sold under the name Desbutal. The name changes involve no variations of formula or price.

Pharmaceuticals in Malaya.—Vanguard, Ltd., 83 Cross Street, Kuala Lumpur, Malaya, announce that they have two pharmacists on their staff, whose services they offer to manufacturers of pharmaceuticals who have not as yet entered the Malayan market or who seek better representation in Malaya or Singapore.

Half-strength Tablets.—Pharmaceutical Laboratories Geigy, Ltd., Rhodes, Middleton, Manchester, announce the introduction, on September 1, of Butazolidin tablets, 100-mgm. The half-strength tablet is being introduced to facilitate adjustment of Butazolidin dosage, and in response to requests from the medical profession. The original 200-mgm. tablets will continue to be available.

Pure Wool Electric Blanket.—The latest Isoblanket, the Isoblanket Lana, in the range manufactured by Isopad, Ltd., 30 Rosemont Avenue, London, N.W.3, is made from pure wool and measures 60 x 80 in. (i.e., the full size of a bed blanket). It can be tucked in like an ordinary blanket without



stresses and strains on the heating element, which is in an area 30 x 54 in. The blanket is provided with a three-heat switch on which all figures are raised so that it can be operated in the dark. The Lana is thermostatically controlled.

Exhibits.—At the first World Conference on Medical Education and at the twelfth International Congress of Limnology, Edward Gurr, Ltd., 42 Upper Richmond Road, East Sheen, London, S.W.14, exhibited ranges of

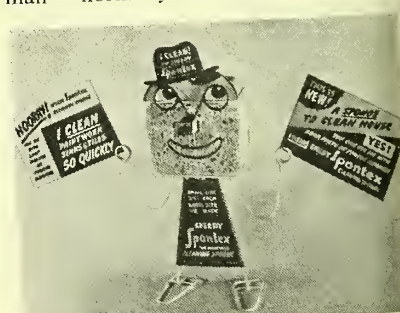
their Michrome brand biological stains and reagents, claimed to be now the most comprehensive in the world.

New Features, Greater Availability.—The Pifco "streamlined" hairdryer, which has been in short supply for some years, is now freely available as an outcome of new plant installations by the manufacturers, Pifco, Ltd., Watling Street, Manchester, 4. The design has been improved to incorporate new features, and the dryer is at a new selling price.

Everything in Tableting.—Thompson & Capper Wholesale, Ltd., Speke Hall Road, Liverpool, 19, who have been making compressed tablets for over fifty years, maintain stocks of tablets of standard formulas and specialise in experimental work. Their plant is capable of making perfect tablets from $\frac{1}{8}$ to $2\frac{1}{2}$ in. in diameter, and 8 mgm. to 4 oz. in weight.

Preservative Against Corrosion.—Supplied as a solution comprising pure zinc, carbon, latex and similar carrying agents, Cowanite evaporates rapidly to leave an adhering film which renders harmless as a cause of rust moisture coming in contact with. The product is made by Adelaide Manufacturing Co., Liverpool, and distributed by Cowanite (Anti-Corrosive), Ltd., 15 Tithebarn Street, Liverpool, 2.

Film Characters.—A 2-minute film, "Come Clean," made for Sponcel, Ltd., Bromley, Kent, to advertise their Spontex sponges, is characterised by Spontex sponges animated as puppets, which demonstrate ways in which Spontex sponges are useful in the home. A programme of autumn showings at cinemas covers the southern counties of England and South Wales. Special show material has been produced to enable interested retailers to link their shops with the film. Among the items is a little "wire man" similar in style to the puppets in the film. The "wire man" normally features the Spontex



household cleaning sponge, but display material for toilet sponges, which also appear in the film, is available. The "wire man" cannot be supplied against postal requests as it has to be erected by the company's representatives.

Bonus Offers.—During September only, W. B. CARTWRIGHT, LTD., Rawdon, Leeds, are offering a special bonus of thirteen packets for the price of twelve on all orders for Moorland antacid indigestion tablets. — From September 1 to October 17, VITAMINS,

LTD., 23 Upper Mall, London, W.6, are making available a series of bonus parcels at special discounts equivalent to thirteen to the dozen.—MEGGESON & Co., LTD., Llewellyn Street, London, S.E.16, are offering a bonus of 1 doz. 2-oz. tins glycerin and blackcurrant pastilles with every order value £10

net of the company's assorted merchandise.

Chemicals in Evaluation Quantities.—A new service to the fine chemical industry is projected by Kirkby Chemicals, Ltd., Kirkby Trading Estate, nr. Liverpool. It is the provision of new organic chemicals in quantities

adequate for evaluation (100 gm. to 28 lb.) at prices below cost of preparation on the pilot plant of a manufacturer's own development section. Not for a considerable time will the service be in full operation, but the company invites inquiries and comments.

NEW PRODUCTS AND PACKS

Balm Against Local Pain.—The Crookes Laboratories, Ltd., Park Royal, London, N.W.10, have introduced under the name Anabalm a new preparation for the relief of local pain and the remobilisation of stiff joints in rheumatic and fibrositic conditions. The formula comprises the salicylic ester of ethylene chlorohydrin giving a gradual release of the active radicle histamine hydrochloride to stimulate peripheral blood supply, and a naturally occurring oil, squalene, to ensure ready absorption. Anabalm is issued in 1-oz.

B₁₂ with Intrinsic Factor.—The Armour Laboratories (Armour & Co., Ltd.), Lindsey Street, London, E.C.1, announce the introduction of a new product, Biopar tablets, which combine vitamin B₁₂ with intrinsic factor. The product is understood to enable vitamin B₁₂ to be administered in conditions previously considered amenable only to injected vitamin B₁₂. Biopar tablets are issued in bottles of thirty sixty and 500 tablets. "Intrinsic factor," present in normal gastric juice, is considered essential for the formation of the anti-anaemic principle.

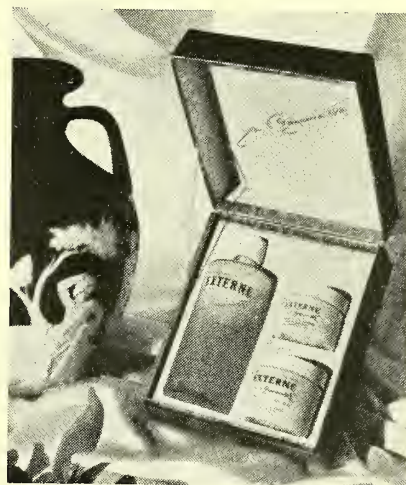
Streptomycin in Sterile Solution.—Under the name Streptaqueine, Distillers Co. (Biochemicals), Ltd., Speke, Liverpool, 19, have made available a sterile solution of streptomycin sulphate with 0.5 per cent. phenol as bac-

terio-stat. It is administered intramuscularly (not intrathecally) in injections susceptible to streptomycin. Streptaqueine is issued in box of five 4-ml vials, and is distributed by Allen & Hanburys, Ltd., The British Drug Houses, Ltd., Burroughs Wellcome & Co., Evans Medical Supplies, Ltd., Imperial Chemical (Pharmaceuticals), Ltd., and Pharmaceutical Specialities (May & Baker), Ltd.

Humidity Slide Rule.—To enable users of wet and dry bulb-thermometers to ascertain relative humidity readings, Short & Mason, Ltd., Macdonald Road, London, E.17, offer the No. 3805 S. & M. humidity slide rule. It is simple and accurate, convenient in size, and protected by a strong leather case. The rule is made of white plastic, mounted on a wood back, with bold figures and graduations. Two scales are provided, on the reversible slide, one for screen, and the other for aspirated thermometers. The main advantages are that only one setting is required, that accuracy at any point is within ± 1 per cent. of readings furnished by tables; and that cumbersome tables are unnecessary.

Bogolometz Products in Britain.—The preparations of Dr. V. Bogolometz, which have been available for several years in France, are now being marketed in Britain under the name Externe, by the Externe Co., Ltd., 20

Sloane Street, London, S.W.1. The products are formulated on the theory that the natural functions of the connective tissue beneath the epidermis



can be stimulated. Three preparations comprise the treatment: Preparatory Externe, a deep cleanser in types for dry, normal and greasy skins; day Externe, a foundation cream; and night Externe which "contains the biological elements essential for the stimulation of the dermis."

MERCHANDISE MARKS ACT, 1953

"Misleading" Trade Descriptions Now Illegal

THE Merchandise Marks Acts, 1953 which received Royal Assent on July 31, makes more stringent the provisions of the Merchandise Marks Acts 1887 to 1938, relating to false trade descriptions. It does so (1) by extending their application to misleading trade descriptions, (2) by enlarging the type of description to which they apply and (3) by increasing the penalties for offences. The Act also extends to certification trade marks, the provisions concerning the use of United Kingdom trade marks on imported goods which now apply to ordinary trade marks; the purpose of those latter provisions is partly to protect the trade mark, but mainly to prevent the use of the trade mark from suggesting that the goods are home produced.

Clause 1, subsection 1, extends the meaning of the term "trade description" in the Act of 1887 to include indications of the standard of quality of any goods, according to a classification commonly used or recognised in the trade; or of the fitness for purpose, strength, performance or behaviour of any goods. Subsection 2 ex-

tends the meaning of "false trade description" to include trade descriptions which are misleading in a material respect as regards the goods to which they are applied. Subsection 3 reinforces subsection 2 by dealing expressly with the sort of description which is calculated to convey a meaning it does not express, for instance, by using a true statement to imply something false or by qualifying prominent words by words likely to be passed over; statements of that sort, which in their secondary meaning would be false trade descriptions, may not—if read strictly—be trade descriptions at all: that point is dealt with by the second part of the subsection. Subsections 4 and 5 contain savings to prevent the Clause interfering with the continued use of existing trade marks, and to prevent extending the operation to section 16 of the 1887 Act which requires the Customs to seize imported goods bearing a false trade description.

Clause 2 restricts the application of the provisions of the Merchandise Marks Act, 1887, relating to false trade descriptions in the case of cer-

tain statutory descriptions applied to seeds, fertilisers and feedingsuffs, agricultural produce, etc.

Clause 3 deals with certification trade marks on imported goods in the way mentioned above. Subsection 2, which is parallel to section 1 (4) of the Merchandise Marks Act, 1926, allows the mark to be applied, without an indication of foreign origin, to imported containers, etc., intended for use in the United Kingdom for packing home produced goods, where the mark is applicable to the contents and not to the containers.

Clause 4 makes it an offence to sell, expose for or have in possession for sale, or for any purpose of trade or manufacture, any goods or things to which any forged trade mark or false trade description is applied, or to which any trade mark or mark so nearly resembling a trade mark as to be calculated to deceive is falsely applied.

Clause 5 increases the penalties on a summary conviction under the Act of 1887. The first section of the new Act has effect from January 31, 1954.

For easy profits
display

BESORBON

— perfect remedy

for colds, catarrh, hay fever, etc.
Known and trusted
for 50 years

BESORBON SELLS ON SIGHT!

Stocked by principal wholesalers throughout the British Isles.

KEMSALES LTD. 20 EASTCHEAP, LONDON, E.C.

**P.A.S.
GLYCINE
FERROUS GLUCONATE
ISONIAZID**

HALEWOOD CHEMICALS LIMITED
111-115 EASTBOURNE MEWS, PADDINGTON, LONDON, W.2
AMBASSADOR 4198

"The pack that sells itself!"

"Serve yourself" wire display
stand **FREE**



Obtainable
through Wholesalers.

Waterproof:
4/3 doz. trade. 6d. retail
Elastic: 6/3 doz. trade. 9d. retail

Also 1 yd. lengths in dispenser packs.
Manufactured by **HINDERS LTD.**, 174/192 Estcourt Road, S.W. 6

**BURROUGH'S
ABSOLUTE ALCOHOL**

JAMES BURROUGH LTD., 4 Cale Distillery, London, S.E.11

TRAGACANTH

SPECIALISTS IN B.P. POWDER

SAMPLES AND PRICES ON REQUEST

FREUDENTHEIL, SMITH & CO.

16 Philpot Lane, London, E.C.3

MANsion House 1924 and 6600

Estd. 1826

TABLETS *MANUFACTURED to Customers formulae*

- Modern Plant
- Prompt delivery

Quality and accuracy guaranteed

B.P., B.P.C., & N.F. tablets stocked

G.O. WOODWARD & CO. LTD.

LARKHALL WORKS, NUNHEAD GREEN, LONDON, S.E.15
NEW CROSS 0478

I. HOLLAND LIMITED
ENGINEERS

HOLLAND-
WORDS

PROPHETIC

BEEFSTEAKS IN TABLET FORM

We have not knowingly made any
Punches and Dies for things on the
hoof for you clever boys as yet. But—

Whatever the shape and flavour of
things to come,

I. HOLLAND LTD.—Engineers, the
Tablet-Maker's Tool-Makers, with a
phobia for Punches and Dies—will
make them.

128 WATERWAY STREET, NOTTINGHAM
Telephone: 88103

IS IT A POISON?

For quick and easy reference use the
'C & D' POISONS GUIDE, Vol. I

PRICE £1, POSTAGE 6d. EXTRA

THE CHEMIST AND DRUGGIST
28 ESSEX STREET, STRAND, LONDON, W.C.2

INFORMATION WANTED

The Editor would appreciate information about
suppliers of the following items:

A.G.U. for external use SACHETS, LTD. (address wanted)
EWARTS RED PASTE CONDITION PILLS
LITTLE DENTIST tooth-brush
PHARMICEL TSORALEA ointment
POLYDYNE ZERMO radiant heat

The CHEMIST AND DRUGGIST SUPPLEMENT

Head Office: 28 Essex Street, Strand, London, W.C.2.
Telephone: Central 6565.

Telegrams: Chemicus, Estrand, London.

CLASSIFIED ADVERTISEMENTS MUST BE PREPAID. For rates see sectional headings

ORRIDGE & COMPANY

184 STRAND, W.C.2
Tel.: TEMple Bar 9212/3 & 6340

CHEMIST BUSINESS TRANSFER AGENTS AND VALUERS WHOLESALE AND RETAIL
BRANCHES: BIRMINGHAM · SOUTHAMPTON · LIVERPOOL · SHEFFIELD · CARDIFF
Irish Representative: Mr. J. A. Bassett, Ph.C., 57 Great Victoria Street, Belfast, Northern Ireland. Tel.: Belfast 27078

BUSINESSES FOR DISPOSAL

17/6 for 36 words (min.) then 4d. per word.
Box 2/-

DEATH VACANCY. Unopposed pharmacy for sale in small well-known country town in the Cotswolds, drawing business from many surrounding villages. Established 70 years. Turnover should be capable of considerable increase. Corner premises in main street for sale with the business. Further details from Box C 5889.

FOR SALE or rent. Established druggist and hairdressers. Going concern. Good living accommodation. Splendid opening qualified chemist. Littleworth (Stafford), Ltd., Weston Rd., Stafford. C 4225

HIGH-CLASS DRUG STORE for sale. Situated 9 miles from Birmingham. Main street position. Long lease. Modern Premises. Excellent opportunity for pharmacist. Many good agencies, including cosmetics, perfumery and photographic. Purchase price, including stock, fixtures, fittings, goodwill and lease £7,000. Write Box C 4239.

LONDON, E.C. Business for sale, occupies a key position with no near opposition, now run as a prosperous drug store with average takings well over £200 a week, scope to double by live wire. Chemist or business man. Illness is only reason for selling. Price £4,000, s.a.v. This is a genuine business and only genuine enquiries will be answered. Apply Box C 4234.

PERFUMERY MANUFACTURERS' business for sale. Established nearly 20 years, valuable connections home and export, considerable scope for development. Goodwill £1,000, s.a.v. about £1,500. No premises. Principals only. Box C 4224.

ROCHDALE. Main road pharmacy, established 30 years. Last year's returns £4,500 (approx.), including £1,800 N.H.S. Stock and fixtures approx. £1,500. Goodwill £700. Property £850. Offers invited for last two items, or lease considered. Richardson, 56 Whitworth Rd., Rochdale. Phone: 2925. C 4237

APPOINTMENTS

18/- per half-inch (min.) and pro rata.
Box 2/-

STOKE-ON-TRENT HOSPITAL MANAGEMENT COMMITTEE, CITY GENERAL HOSPITAL, STOKE-ON-TRENT

Applications are invited for the post of Assistant in Dispensing. Salary in accordance with National Scales. Applicants must hold the Certificate of Apothecaries of London or other equivalent qualification. Applications, giving full details including previous experience, to the Secretary at the Hospital. C 5830

PHARMACEUTICAL CHEMIST/STOREKEEPER

required by
**SARAWAK GOVERNMENT
MEDICAL DEPARTMENT**
for one tour of 3 years in first instance with prospect of renewal. Commencing salary, etc., according to marital status and experience in scale £1,001 to £1,925 a year. Gratuity at rate of £100 rising to £150 a year. No local income tax. Housing available. Free passages. Liberal leave on full salary. It may be possible to preserve N.H.S. Superannuation rights. Candidates must be M.P.S. and should have some experience in medical storekeeping. Write to the Crown Agents, 4 Millbank, London, S.W.1. State age, name in block letters, full qualifications and experience and quote M3A/33924/CD. C 5878

ADMIRALTY PHARMACISTS

Applications are invited from Pharmaceutical Chemists or Chemists and Druggists for posts as Pharmacists in R.N. Hospitals and Medical Depots at Home and Abroad. Salary scale £450 x £25—£575. Starting pay according to previous professional experience, but candidates under 23 would enter at appropriate point below minimum quoted. Allowance of £25 a year payable in addition to holders of recognised qualification higher than M.P.S. Foreign Service Allowance payable overseas. Prospects of promotion to higher ranks. Superannuation benefits under National Health Service (Superannuation) Regulations 1950; deduction of 6 per cent, made from salary on that account. (Pharmacists due to be entered for compulsory National Service cannot be accepted as candidates.) Apply to Medical Director-General of the Navy, Admiralty, Queen Anne's Mansions, London, S.W.1. C 5866

CRUMPSALL HOSPITAL, MANCHESTER, 8 (Adult General, 1,225 Beds)

Vacancies exist for two pharmacists and applications are invited for these posts. Salary and conditions of service as laid down by the Whitley Council.

Applications, stating age, nationality, details of experience, together with the names and addresses of two referees, are to be sent to the undersigned as soon as possible, Dept. "C.D."

A. T. SAMPSON,
Group Secretary. C 161

HACKNEY GROUP HOSPITAL MANAGEMENT COMMITTEE, LONDON, E.9

PHARMACIST required for Hackney Hospital, Whitley Council salary and conditions. Applications to Secretary, Hackney Group Hospital, Management Committee, London, E.9. C 156

HAROLD WOOD HOSPITAL, HAROLD WOOD, ESSEX

PHARMACIST required. Salary scale £450 x £25—£575 p.a. Whitley Council conditions. Apply to Group Pharmacist, Harold Wood Hospital, Harold Wood, Essex. (Tel.: Ingrebourne 2881), from whom further details may be obtained. C 5882

LEICESTER ISOLATION HOSPITAL AND CHEST UNIT, GROBY ROAD, LEICESTER

Applications are invited for the position of Senior Pharmacist at the above hospital. The appointment will also carry responsibilities for duties connected with the Central Purchase and Supply of drugs, etc., and work at other hospitals in the group under the direction of the Chief Pharmacist. The commencing salary, depending on experience and previous service, is within the scale of £525 p.a. x £25 to £625 p.a.

Apply, with the names of two referees, to the Chief Pharmacist. C 5885

REDHILL COUNTY HOSPITAL, EARLSWOOD COMMON, REDHILL, SURREY

Applications are invited for the post of Pharmacist under Chief Pharmacist at Redhill County Hospital. Salary on the scale £450 x £25—£575 plus other special allowances. Wide variety of work undertaken including sterilisation and small scale manufacturing. The post is subject to the provisions of the N.H.S. (Superannuation) Regulations. Cottage available for married man, if required, at rental of 10s. per week exclusive. Applications, stating age, qualifications and experience (previous hospital experience not essential) together with the names of two referees, to be sent to the Group Secretary at Redhill County Hospital, Earlswood Common, Redhill, Surrey, immediately. C 5881

ROYAL FREE HOSPITAL, GRAY'S INN ROAD, W.C.1

Locum Pharmacist required immediately for approximately one month. Salary 14 gns. per week. Applications to be addressed to the Group Chief Pharmacist. C 5879

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, LONDON, W.C.1 PHARMACIST

Applications are invited for the post of Pharmacist at this hospital. Salary within the Pharmaceutical Whitley Council Scale (£450 x £25—£575) plus London Weighting. £25 for recognised higher qualification. Apply by letter to Chief Pharmacist. C 166

Appointments—Continued**SCUNTHORPE HOSPITAL
MANAGEMENT COMMITTEE**

Locum Pharmacist required immediately for minimum period of four weeks. Rate of pay £13 per week. Applications to Group Secretary, War Memorial Hospital, Scunthorpe. C 5858

ST. GEORGE'S HOSPITAL, S.W.1

Applications are invited for the post of Pharmacist at above teaching Hospital. Salary in accordance with the Pharmaceutical Whitley Council Scale. Applications, with full particulars, to Chief Pharmacist. C 5842

**SCUNTHORPE HOSPITAL
MANAGEMENT COMMITTEE**

Senior Pharmacist (Category III) required—vacant end of August. Whitley conditions of service—salary £525 x £25 to £625. Applications, stating age, qualifications, experience, and naming two referees to The Group Secretary, War Memorial Hospital, Scunthorpe, Lincs. C 5857

**THE LONDON HOSPITAL,
WHITECHAPEL, E.1**

has vacancy for Pharmacist. Applicants must be registered Pharmacists and salary scale will be £450 (age 23) x £25—£575 according to previous experience and service. Dining-room facilities available. Write Secretary. C 165

**THE MILLER GENERAL
HOSPITAL, S.E.10**

(180 Gen. Beds, Category III)
CHIEF PHARMACIST required. Wide experience similar hospital (with large out-patients' dept.) and in modern pharmaceutical techniques essential. Whitley Council salary and conditions. Applications and testimonials to Gen. & D./H.M.C., St. Alfege's Hospital, Greenwich, S.E.10. C 5880

**THE MILLER GENERAL
HOSPITAL (180 Beds),
GREENWICH, S.E.10**

Applications are invited for the post of Pharmacist in a well-equipped pharmaceutical department at the above hospital. Inspection of the department may be made by arrangement with Chief Pharmacist. Salary and conditions of service as laid down by the Pharmaceutical Whitley Council. Applications, giving full details should be made to the Secretary, G. & D./H.M.C., St. Alfege's Hospital, S.E.10, as soon as possible. C 5888

**THE UNITED BIRMINGHAM
HOSPITALS,****QUEEN ELIZABETH HOSPITAL,
EDGBASTON, BIRMINGHAM, 15**

Applications are invited from Pharmacists or Post-graduate Students for a resident post providing a unique introduction to Hospital Pharmacy. Encouragement is given to useful research. Salary in accordance with Whitley Council scales, less a deduction of £120 per annum for full Board residence. Applications, giving names of two referees, to the Chief Pharmacist. C 5832

**THE UNITED
NEWCASTLE UPON TYNE
HOSPITALS,
ROYAL VICTORIA INFIRMARY
DEPUTY CHIEF PHARMACIST
(Category V)**

Applications are invited for the appointment of Deputy Chief Pharmacist in the United Newcastle upon Tyne Hospitals. Salary and conditions of service as laid down by the Pharmaceutical Whitley Council. Applications, stating age, qualifications and experience, together with the names of three referees, should be forwarded as soon as possible to the House Governor and Secretary, Royal Victoria Infirmary, Newcastle upon Tyne. C 5865

**WEST MANCHESTER H.M.C.,
PARK HOSPITAL, DAVYHULME
PRE or POST-GRADUATE STUDENT
PHARMACIST required. Further details and forms from Secretary. C 5864****WEST LONDON HOSPITAL,
HAMMERSMITH ROAD, W.6
LOCUM PHARMACIST**

required for several weeks commencing immediately. Salary 15 guineas per week. Apply Chief Pharmacist. C 5886

**WEST LONDON HOSPITAL,
HAMMERSMITH ROAD,
LONDON, W.6****APPLICATIONS INVITED FOR THE
APPOINTMENT OF**

PHARMACIST (MALE OR FEMALE)
at the above general teaching hospital, where there is a busy Pharmaceutical Department and a wide variety of experience is offered. Salary scale £450—£575 per annum, plus London Weighting. Other terms and conditions in accordance with the Pharmaceutical Whitley Council. Age, qualifications, experience, names of two referees to Secretary. C 5887

**WEST MANCHESTER H.M.C.,
PARK HOSPITAL, DAVYHULME**

SENIOR PHARMACIST (M.P.S.) required for modern department. Whitley Council conditions. Salary £550 x £25 (3)—£625. Forms from Secretary. C 167

SITUATIONS OPEN

8/6 for 36 words (min.) then 3d. per word.
Box 2/-

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

RETAIL (HOME)

AN EXPERIENCED ASSISTANT, unqualified, required for good-class dispensing business. Congenial post. Thursday half-day. No duties. Apply Epton, Chemist, 4 Gladstone Parade, Edgware Road, Cricklewood, N.W.2. Phone: Gla. 5314. C 4207

ASSISTANT PHARMACIST (lady or gentleman) required for business in town centre. Newly qualified or young person with general retail experience; for brisk counter trade and average dispensing duties. State salary, etc., to the Secretary, Ashton-under-Lyne Co-operative Society, Ltd., "Arcadia," Stamford St., Ashton-under-Lyne. C 4215

BRISTOL, Superintendent manager required near future for busy modern middle-class pharmacy. Preferably married. Congenial post suiting recently qualified or middle-aged gentleman. Must be active, enterprising with initiative. Capable staff. Permanency. Apply with full details stating salary required, enclosing references. Strict confidence. S/C furnished flat if required. Box C 4209.

COVENTRY, Qualified assistant (male or female). Central Pharmacy. Good prospects of advancement. Excellent staff. No Sunday, rota, or half-day duties. Permanency. 44-hour week. Semi-detached house with garage available. Salary £15 per week with half-yearly bonus. Superannuation scheme. Apply with full particulars to Superintendent Chemist, full particulars to Co-operative Society, Ltd., Lockhurst Lane Co-operative Society, Ltd., Lockhurst Lane, Coventry. C 4191

COVENTRY, Branch manager required. Salary and bonus now above £800 per annum. No Sunday or rota duties. Superannuation scheme with transfer clause in operation. Adequate supporting staff maintained. The successful pharmacist will be offered at a reasonable rent a modern three-bedroomed villa in one of the best suburbs of the city. Apply with full particulars to the Superintendent Pharmacist, Coventry and District Co-operative Chemists, Ltd., Smithford St., Coventry. Endorsed "Pharmacist." C 4181

EVANS MEDICAL SUPPLIES, LTD., Ruislip. Pharmacist required to take charge of retail chemists section sales dept. Apply General Manager, stating age, experience, qualifications. C 5861

LIVERPOOL, Qualified manager required for new pharmacy, permanent position. Salary £800 per annum. No Sunday or half-day closing duties, full counter staff and dispensing assistant engaged. Apply to Metcalfe & Co. (Liverpool), Ltd., 34 Landford Avenue, Liverpool, 9. C 4143

LONDON, E.15, £16 10s. weekly and commission on script items increase offered Pharmacist for dispensing duties. Hours 9-7. Thursday half-day, also alternate Saturday half-day. Permanency suitable for middle-aged lady/gentleman wishing to slow down. Box C 4219.

MAIDSTONE, KENT. Qualified assistant required mainly for dispensing duties. Permanent and congenial post with superannuation scheme. Provision of house will be considered if necessary. Stonham & Son, Ltd., 70 Bank Street, Maidstone. C 4220

NORTH LONDON, Lady assistant wanted in good-class family business for counter, window dressing and general shop duties. No dispensing. Hours 9 to 6. Thursday half-day. Apply with full particulars of experience, age and salary required to Box C 4210.

SHREWSBURY, A refined lady pharmacist required, business in healthy area and under congenial conditions. Modern accommodation available if required. Full particulars to Box C 4201.

STRATFORD, LONDON, Unqualified dispenser willing to help in shop if required. Fair salary and commission with opportunity of advancement to keen and industrious person. Box C 4218.

WANTED, Pharmacist manager (C.P.C. optician an asset) but not essential. Modern pharmacy near Harrow, excellent salary and commission plus free house, garden. Full supporting staff. Apply Box C 4204.

WARWICKSHIRE, Pharmacist required to manage new branch on housing estate. Old established busy country business—dispensing, veterinary and agricultural. Permanency. Applications, stating salary, etc., to Adcock, 51/53 High Street, Alcester, Warwickshire. C 4214

Wellingborough Industrial Co-operative Society, Limited. Reg. Office, 8 Midland Road, Wellingborough, Northamptonshire.

**PHARMACY (AND ASSOCIATED
SECTIONS) SUPERINTENDENT**

Pharmacist required as Pharmacy Superintendent owing to present position. Turnover of Society annually £1,100,000. Membership 11,000. Annual turnover of Pharmacy Department £30,000 with scope for expansion. Applicants must have a thorough knowledge of Pharmacy and its allied departments, and a good record of business results in turnover expansion and profit. The Pharmacy comprises Pharmacy shop with separate Drug, Photographic and Cosmetic Sections, and a separate shop with a specialised stationery and fancy goods section. Modern detached house is available. Superannuation scheme with transfer clause. Applications, in writing, giving full details of qualifications, names of two referees, experience and age, to be sent to the Secretary/Manager, by Monday, September 14th, 1953. C 4231

YORK CO-OPERATIVE Chemists' Society, Ltd., require qualified branch manager, male or female. Salary and bonus, commission on dispensing and rota fees. Superannuation scheme, transfer clause. Good conditions. Living accommodation available. Applications, giving full particulars to York Co-operative Chemists' Society, Ltd., 22 Railway Street, York. C 4223

LOCUMS WANTED

E.11 DISTRICT, LONDON. Qualified relief wanted few hours daily — only supervisory. Remuneration as required according to time given. Please enquire Box C 4217.

RETAIL (OVERSEAS)

A QUALIFIED MAN, preferably single, required to manage important English pharmacy in Hong Kong. Only men who have received a first-class training in all branches of pharmacy need apply. Living accommodation, staff pension scheme, passage paid. Excellent prospects for the right man. Reply A. S. Watson & Co., Ltd., 64 Crutched Friars, London, E.C.3. C 5862

PHARMACIST REQUIRED by firm of wholesale and retail chemists to manage a branch of the company in British West Africa. Young unmarried man preferred experienced in retail and wholesale management and capable of obtaining good results. Knowledge of optician's advantage but not essential. Salary inclusive of cost of living allowance to commence is £850 per annum and is progressive. Low Colonial rate of income tax, contributory pension scheme, free furnished quarters provided, also medical attention whilst overseas. Tours of short duration with generous home leave on full pay. First-class air or sea passage paid outward and homeward. Apply giving full details to Box C 4216.

'UNISEC' from the Single Unit to the Complete Pharmacy
WRITE FOR YOUR COPY OF THE STANDARD REFERENCE OF PHARMACY FITTING
MYERS of OLD ST.
133/5 & 141/7 OLD STREET, LONDON, E.C.1

WHOLESALE

A PHARMACEUTICAL ASSOCIATION requires the services of a man age about 30 as a trainee for office duties in London and thereafter outside representation. The applicants must be of good education and address with approximately 5 years' experience in pharmacy. The duties may entail a considerable amount of travelling in Great Britain. Commencing salary around £450 per annum, according to experience, plus expenses when engaged on outside duties. The appointment will be for a probationary period of six months in the first instance. All replies will be treated in strictest confidence. Box C 4190.

ALLEN & HANBURY, LTD., Bethnal Green, London, E.2, require a pharmacist (male) to act as technical assistant in sales department. The post is superannuated and a five-day week operates. Apply, in writing, giving details of age, education, qualifications, etc., to Personnel Manager. C 5873

ALLEN & HANBURY, LTD., Bethnal Green, London, E.2, require young pharmacists (male) to act as medical representatives. Successful applicants will receive training before taking over territory and all posts are superannuated. Apply in writing, giving details of age, education, qualifications, etc., to Personnel Manager. C 5872

AN EXPANDING COMPANY marketing an exceptionally fine range of proprietaries has vacancies on the following territories for creative salesmen with personality and drive:— (a) Yorkshire and Northern Counties; (b) West Country and South Wales; (c) South-east London, Kent, Sussex; (d) South-west London, Surrey, Hampshire. Applicants must be car owners, preferably between ages 30 and 45, with successful pioneering record and established connections with retail and wholesale chemists and co-operative societies. Products are superbly presented and outstanding in their field. Progressive positions offered with salary, expenses and commission after short probationary period. Sole agencies considered. Please send full confidential details including past and present employment, lines carried, age, experience, etc. Box C 4228.

CALMIC, LIMITED, CREWE, require assistant tablet maker and sugar coater for this rapidly expanding department. Full details of experience and age should be given. Pension scheme and excellent working conditions. Reply to be addressed to Works Manager, Calmic, Ltd., Crewe, or phone Crewe 3251. C 5869

CHEMIST REPRESENTATIVE. Keen young man required by well-known manufacturing chemists to call on chemists, wholesalers, etc., in Lancashire, Yorkshire and North Wales. Car owner preferred, residing in Manchester area. Established connections handed over with excellent prospects. Remuneration by salary, commission and expenses. Full details age, previous experience, earnings, etc., to Box C 5867.

EVANS MEDICAL SUPPLIES, LTD., have a vacancy for a representative to call on chemists in Lancashire. Applicants must be under 35 years of age with recent experience of retail pharmacy. Apply, in writing, to the Home Sales Director, Evans Medical Supplies, Ltd., Speke, Liverpool, giving full details of career. C 5868

LEEDS AREA. Representative required by London firm, must have good knowledge of surgical instruments and hospital equipment. Previous experience essential and connections an advantage. Good salary and bonus, with car if required, for suitable applicant. Apply JGE Dept., Box C 5806.

FOREMAN process worker required for manufacturers of fine chemicals. Conscientious and clean worker, able to take responsibility. State age, experience and salary required. Roussel Laboratories, Ltd., 847 Harrow Rd., London, N.W.10. C 4189

JOHN BELL, HILLS & LUCAS, LTD., have a vacancy in their tablet department for a foreman. Applicant must have a sound knowledge of trade. Excellent prospects for right man. Apply Works Manager, Oxford Works, Worsley Bridge Road, S.E.26. C 4229

LEADING AND PROGRESSIVE FIRM of manufacturing chemists in the North-west have vacancy shortly becoming vacant for experienced REPRESENTATIVE for established territory. The position requires a thorough knowledge of the selling of Drugs and Galenicals and carries a generous salary plus commission and expenses. It is permanent and offers excellent prospects. Applications marked "Strictly Confidential," should give full particulars of age and past and present experience stating if car owner, and should be addressed to "Sales Director," Box C 5843.

MANAGER REQUIRED for wholesale warehouse. Excellent prospects for hard worker, capable of administering buying and staff control. Apply, in writing, stating full details experience, age and salary required, to Box C 4235.

MANUFACTURING CHEMISTS require a representative with experience and "live" accounts to call on retail chemists in the Midlands. Men between 50 and 60 will be very seriously considered. A car essential. Good remuneration. Apply in writing. Box C 5804.

MEDICAL REPRESENTATIVE with pharmaceutical or medical background required by large firm of manufacturing chemists to interview doctors, hospitals and chemists in the Midlands. Residence in the Birmingham area preferable. Car provided. Salary and expenses. Pension scheme. Apply giving age and full details of qualifications and experience, and stating salary required, Box C 5875.

MEDICAL REPRESENTATIVE with pharmaceutical or medical background required by large firm of manufacturing chemists to interview doctors, hospitals and chemists in Yorkshire. Residence in the Leeds district preferable. Car provided. Salary and expenses. Pension scheme. Apply giving age and full details of qualifications and experience, stating salary required, Box C 5874.

MIDLANDS REPRESENTATIVE required by company manufacturing specialities selling to a wide variety of wholesale and retail outlets. Salary, commission and car allowance to man capable of increasing existing connections. This is the opportunity for a really first-class man. Replies in confidence should state in detail experience, age and territory covered. Box C 5877.

PILL AND TABLET COATER required immediately with experience of coloured coating. Five-day week and pension scheme in operation. Apply, in writing, to Technical Director, Beecham (Northern), Ltd., Westfield Street, St. Helens, Lanes. C 4232

REPRESENTATIVES

having first-class connections with Chemists and Hairdressers and able to sell unadvertised Toilet Preparations with a view to later publicity wanted in London and other areas. £500 p.a. plus Commission. Apply, in writing, to Preston Laboratories, Turnpike Lane, London, N.8. C 5883

Young pharmacist required by major Swiss pharmaceutical house for employment in Basle. Unmarried man preferred. Working knowledge of German necessary. Previous experience of ethical marketing desirable. Interests should lie in the preparation of medical literature and the development of export markets. Apply, with full particulars, including a recent photograph, to Box C 5855.

REPRESENTATIVES are required by a leading firm of ethical pharmaceutical manufacturers for posts in London and Glasgow. Applicants living locally with comprehensive pharmaceutical background, and preferably with representative experience are invited for these progressive and interesting positions. The main duties involve interviewing medical men in general practice and in hospitals and in visiting pharmacies and hospitals. Salary, bonus and expenses will be paid and there is a contributory superannuation scheme. Reply giving full details of experience and qualifications to Box C 5839.

SCOTLAND. Applications are invited by well-known ethical house for the position of medical representative to cover the territory comprising Glasgow and district. The position offers real opportunity and prospects for a first-class man. Pharmaceutical qualification is not necessary but comparable knowledge is essential. Applicants must reside on and know the territory well. Remuneration; salary, commission and expenses. Write, in confidence, to Box C 5848.

STAFFORD ALLEN & SONS, LTD., require an assistant with administrative ability to their filling and packaging manager. Knowledge of drug filling, packaging and despatch desirable. Write, stating age, experience and salary required to Messrs. Stafford Allen & Sons, Ltd., Wharf Rd., London, N.1. C 5849

WANTED for mid-September, young pharmacist for wholesale drug warehouse. Nottingham district. Good promotion prospects for the right man. Replies in confidence. Box C 4197.

WHOLESALE (OVERSEAS)

A QUALIFIED MAN, preferably single, required to supervise manufacturing laboratory in Hong Kong. Ample scope for the right man to show his initiative. Living accommodation, staff pension scheme, passage paid. Reply A. S. Watson & Co., Ltd., 64 Crutched Friars, London, E.C.3. C 5863

SITUATIONS WANTED

3/- for 18 words (min.) then 2d. per word. Box 1/-

LOCUMS SEEKING ENGAGEMENTS

LOCUM PHARMACIST. Available for three weeks, September 7 to September 28, either in retail or hospital. Please write to Box C 4185.

WHOLESALE

SMART REPRESENTATIVE, age 36, tall, good appearance, education and address, car owner, requires position with reputable manufacturer. Highest refs. Known whole London area chemists and stores as representative to world-famous cosmetic house. Apply Box C 4160.

WORKS MANAGER. Age 52, seeks post, 11 years with present company. Any executive position considered. Wide experience of trade, manufacturing and retail. Box C 4230.

WHOLESALE (OVERSEAS)

PHARMACIST, INDIAN. Wishes appointment in British distribution offices in Bombay. Flying back first week in October. Interview could be arranged during first week of September in London. Please write Box C 4186.

SALES/REPRESENTATIVE

offered salary, commission, expenses and opportunity of substantial income; must have established connection and experience in selling to chemists: drugs, galenicals, dressings, plasters, proprietaries and chemists' sundries. Must be car owner. Some Home Counties and London Territories vacant. Apply to Biorex Laboratories, Ltd., 47/51 Exmouth Street, E.C.1. C 5871

PRICER/INVOICE CLERK

either sex, fully experienced in drugs, ethicals, proprietaries, tablets, chemists' sundries. Good at figures. Permanency. Unusual opportunity. Apply with full particulars to Biorex Laboratories, Ltd., 47/51 Exmouth Street, E.C.1, or phone TERMINUS 9494. C 5870

AGENCIES

17/6 for 36 words (min.) then 4d. per word. Box 2/-

AGENT on commission basis, having well-established connection for nationally advertised lines, stocked by all chemists. Kent, Sussex and part London. Over 400 existing accounts will be handed over. Box C 4236.

AGENTS for all parts of Great Britain to sell cough candy. R. D. Blackwood, Ltd., 30a Elizabeth St., Blackpool. C 4227

LONG-ESTABLISHED Midland firm require agents with good connections among chemists and druggists. Any Counties except South Wales, West and Central Midlands, and Bristol Area. This agency would make an excellent sideline. Worth about £12 per county per month with great possibilities of increase. Commission only. Box C 4188.

AGENCIES WANTED

8/6 for 36 words (min.) then 3d. per word. Box 2/-

RASHID & SONS, 42 Marriot Road, Karachi-2 (Pakistan). Manufacturers' Representatives, seek exclusive agencies of reputed manufacturers for pharmaceutical specialities, patent medicines and allied lines. Reference from The Chartered Bank of India, Australia and China, Karachi. C 4212

REPRESENTATIVE of leading wholesale and retail chemists in Hong Kong will be in London for two weeks commencing September 1 and will be available for interviews with manufacturers who wish to establish connections in Hong Kong. Please communicate with A. S. Watson & Co., Ltd., 64 Crutched Friars, E.C.3. Tel.: Royal 3616. C 5890

C. & D.

REFRESHER COURSE

for Pharmacists

up to the minute information—compiled by a team of experts—Reprinted from "The Chemist & Druggist"

WIDE SELECTION OF TECHNICAL SUBJECTS FULLY COVERED

PRICE 3/- Postage 2d.

Send remittance with order to—

The Publisher The CHEMIST & DRUGGIST
28 ESSEX STREET · STRAND · LONDON, W.C.2

BUSINESS OPPORTUNITIES

17/6 for 36 words (min.) then 4d. per word. Box 2/-

MANUFACTURING CHEMISTS invite inquiries for the manufacture, packing, despatch, etc., of liquid and cream preparations. Box C 164.

WANTED

17/6 for 36 words (min.) then 4d. per word. Box 2/-

ALL KINDS OF BOTTLES, JARS, SCREW CAPS, cartons, packaging materials and manufacturers' stocks of all kinds bought at fair prices for spot cash. We are buyers of merchandise of EVERY DESCRIPTION, Clearance Stocks, Discontinued Lines, Surplus and Redundant Stocks. Should you have anything for disposal, please send us samples and particulars. Reliance Trading Co., 13 New College Parade, Finchley Road, N.W.3. C 153

Expert Guidance in . . .

TRUSS FITTING

Under the National Health Service these appliances can be ordered on EC 10 forms.

Pharmacists should be fully acquainted with the practical details involved in the supplying and fitting of them.

The informative series of articles on the subject recently published in "The CHEMIST AND DRUGGIST" have been reprinted in booklet form, "THE FITTING OF TRUSSES AND ELASTIC HOSIERY", which provides full information in concise detail. Copies should be handy for reference purposes in every pharmacy.

Supplies are now available at the following prices:—

Single copies 1/6 post free. 1 doz. copies . . . 1/4 each post free.
2 doz. copies . . . 1/3 each post free. 50 copies or over 1/- each post free.

Orders with remittance to the Publisher

The CHEMIST AND DRUGGIST
28 ESSEX STREET, STRAND — LONDON, W.C.2

ATTENTION, PHOTOGRAPHIC CHEMISTS,

IS YOUR D. AND P. SERVICE RELIABLE AND PROMPT?

Small capacity available in modern plant, with same day postal service.
Write immediately:
Walsh's Photographics, 43A Ashcombe Rd., Weston-super-Mare. C 4222

PREMISES FOR SALE

17/6 for 36 words (min.) then 4d. per word.
Box 2/-

PORTSMOUTH. Vacant freehold shop premises with living accommodation in a commanding position close to the Harbour Railway Station and main entrance to H.M. Dockyard. Thickly populated area, no chemist within 1 mile. Price £3,500. Further particulars, Hall, Pain & Foster, 57 Commercial Road, Portsmouth. Tel. 70241. C 4221

STOCKTAKING

17/6 for 36 words (min.) then 4d. per word.
Box 2/-

QUIET AND ACCURATE workmanship. Over 30 years' practical experience. Detailed inventories supplied to suit your individual requirements. Your own stock sheets priced. Terms moderate. C. W. Playfoot, 8 Aylward Rd., London, S.W.20. Phone Liberty 4104. C 4213

The C and D WEEKLY LIST OF PRICE CHANGES

A = Advanced; R = Reduced; I.R.P. = Inclusive Retail Price; * = Tax 25 per cent.; † = Tax 75 per cent.

BOOTS PURE DRUG CO., LTD. (from August 31)			
Bi-Stabillin 400,000 units	10	I.R.P.	18 9 R
1-2-mega units	10		42 6 R
Pro-Stabillin 3-mega only	3-mega		9 9 R
Viules Pro-Stabillin oily	3-mega		10 4½ R
300,000 units	6		10 3 R
600,000 units	100		162 6 R
900,000 units	6		16 3 R
	100		262 6 R
	6		21 6 R
	100		350 0 R

BURROUGHS WELLCOME & CO. (from August 31)			
Tabloid penicillin oral	10		3 9 R
20,000 units	100		15 6 R
	250		36 3 R
100,000 units	10		4 10½ R
	100		40 6 R
	250		100 0 R
200,000 units	10		5 7½ R
	100		49 3 R
	250		121 0 R
500,000 units	10		13 9 R
	100		112 0 R

Wellcome oily injection of procaine benzylpenicillin 300,000 units 10-c.c. 10 4½ R

THE DISTILLERS CO. (BIOCHEMICALS), LTD., on behalf of: **ALLEN & HANBURY'S, LTD.**; **THE BRITISH DRUG HOUSES, LTD.**; **BURROUGHS WELLCOME & CO., LTD.**; **EVANS MEDICAL SUPPLIES, LTD.**; **IMPERIAL CHEMICAL (PHARMACEUTICALS), LTD.**; and **PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD.** (from August 31)

Penicillin G sodium and potassium salt	0.2-mega	1 1½ R
	0.5-mega	1 10½ R
	1.0-mega	3 0 R
	5.0-mega	12 6 R
	10.0-mega	23 9 R

BOOTS PURE DRUG CO., LTD., have also reduced the price of their penicillin G as above. **GLAXO LABORATORIES, LTD.**, have reduced their Crystapen penicillin as above.

Distaquaine G	0.3-mega	1 7½ R
	0.9-mega	3 4½ R
	3.0-mega	9 9 R
fortified	0.4-mega	1 10½ R
	1.2-mega	4 3 R
	4.0-mega	12 7½ R
suspension 10-mil	3-mega	10 4½ R

Streptomycin and dihydrostreptomycin sulphate 1-gm. 3 3 R
5-gm. 13 9 R

STREPTOMYCIN products of **GLAXO LABORATORIES, LTD.**, have also been reduced as above.

Distavone vial	1-mega	3 6 R
Mixtamycin	1-mega	3 3 R
Streptaquine (new product)	1-mega	3 3 R

ELI LILLY & CO., LTD. (from August 31)
Duracillin A.S. 10-c.c. 10 4½ R
1-c.c. 2 10½ R

GLAXO LABORATORIES, LTD. (from August 31)

Glucodin 1-lb.	Doz.	24 9	2 9 R
The No. 11 parcel of 2 doz. x 1 lb. with cost £2 4s.			

Estopen	500,000 units	10	21 8	32 6 R
	100,000 units	10	8 4	12 6 R

Seclophen	400,000 units	10	12 6	18 9 R
	5-dose vials each	4	4	6 6 R
Mylipen	300,000 units per c.c.	10-c.c. vial	6 11	10 4½ R
Prolophen	400,000 units per c.c.	10-c.c. vial	9 0	13 6 R

Procaine penicillin G oily injection (Glaxo) and oily injection B.P. (Glaxo) 10-c.c. 6 11 10 4½ R

Crystapen oral tablets	200,000 units	12	4 6	6 9 R
	400,000 units	100	32 10	49 3 R
		12	8 4	12 6 R
		100	64 4	96 9 R
		25	0	37 6 R

Crystamycin	10 vials	45 0	67 6 R
Estomycin	0.5-mega 10 vials	15 0	22 6 R
	0.1-mega 10 vials	23 4	35 0 R
Seclomycin	1-gm. 10	21 8	32 6 R
Dimycin	5-gm. each	9 2	13 9 R

Veterinary penicillin granules (Glaxo) 8-oz. 10 0 15 0 R

IMPERIAL CHEMICAL (PHARMACEUTICALS), LTD. (from August 31)
Avloprocil oily injection procaine penicillin G 300,000 units in 1 c.c. 10 4½ R
10 x 1-c.c. 15 0 R

procaine penicillin aqueous suspension 300,000 units in 1 c.c. 10 4½ R

N.A. procaine penicillin fortified	0.4-mega	1 10½ R
	4.0-mega	12 7½ R

Avlon brand crystalline penicillin G (sodium salt) B.P. and potassium salt, buffered, are also reduced to the same prices as shown under The Distillers Co. above.

Avlon penicillin G oral tablets	200,000 units	10	5 7½ R
	500,000 units	100	49 3 R
		100	13 9 R
		100	112 0 R

APPLICATIONS from retail pharmacists for credit on stocks of penicillin preparations affected by the above price changes held at closing time on August 29 should be made within fourteen days, quoting the batch numbers, to the company concerned; Allen & Hanbury's, Ltd., The British Drug Houses, Ltd., Burroughs Wellcome & Co., Eli Lilly & Co., Ltd., Evans Medical Supplies, Ltd., Imperial Chemical (Pharmaceuticals), Ltd., and Pharmaceutical Specialities (May & Baker), Ltd.

PIFCO, LTD. 74 6 R

Pifco hair dryer* 16 0

SAVILLE PERFUMERY, LTD. (from September 1)

No. 21 June perfume	Doz.	16 0	3 0 A
trial size			

No. 700 Mischief	trial size	16 0	3 0 A
trial size			

No. 800 Seventh Heaven	trial size	16 0	3 0 A
trial size			

P.A.T.A. PROTECTED LIST

J. L. BRAGG, LTD. (from September 1)
Medicinal charcoal, B.P.C. (1934):—

biscuits	23 6	2 6 A
	42 3	4 6 A
	79 9	8 6 A
lozenges	50	16 6
	100	28 6
		32 6
powder, large		23 6
granules		2 6 A

C. & G. KEARSLEY, LTD. (from September 1)
Dox.

Widow Welch's female pills*	13 3	1 7½ A
	31 0	4 1 A

WESTMINSTER LABORATORIES, LTD. (addition)
Kipak inhaler* 15 0 2 0

PHARMAX, LTD.
Diuronil display terms from September 1:— Orders of one doz. and upwards will be subject to a discount of 5 per cent. to retail chemists who undertake to display the product for a minimum of one week. The offer is additional to the existing quantity bonus terms.

NEW PRODUCTS AND PACKS

ABBOTT LABORATORIES, LTD. 6 5

Selsun* 2-oz. 6 5

THE ARMOUR LABORATORIES (ARMOUR & CO., LTD.)

Biopar tablets*	30	12 0
	60	23 0
	500	186 0

DISTILLERS CO. (BIOCHEMICALS), LTD. Each

Distafeed penicillin supplement	1-lb.	2 1½	2 10
1 gm. per lb.	10-lb.	18 9	25 0
	50-lb.	81 3	108 4

Distafeed riboflavin supplement
No. 1 (5,000 microgm. per lb.)

	1-lb.	3 2½	4 3
	10-lb.	28 9	38 4
	50-lb.	131 3	175 0

No. 2 (1,000 microgm. per lb.)

	1-lb.	1 4½	1 10
	10-lb.	10 0	13 4
	50-lb.	40 8½	54 2

Distafeed vitamin B12 supplement
15 microgm. per lb. 1-lb. 4 6 6 0
10-lb. 41 3 55 0
50-lb. 200 0 266 8

EXTERNE CO., LTD.

Preparatory Externe cleanser†		13 6
Day Externe†		18 0
Night Externe†	1-oz.	27 0
	2-oz.	45 0
Externe collyret†		58 6

GLAXO LABORATORIES, LTD. (from August 31)

Crystapen oral tablets

200,000 units	500	160 0	240 0
400,000 units	500	316 8	475 0
Veterinary Mylipen	30-c.c.	18 4	27 6

MOORE MEDICINAL PRODUCTS, LTD.

In-go balm*	1½-oz.	3 4
-------------	--------	-----

ISOPAD, LTD.

Isoblanket Lana* 176 0 209 0

PHARMACEUTICAL LABORATORIES

GEIGY, LTD. (from September 1)

Butazolidin ½-strength tablets 100 mgm.	50	15 0	20 0
	250	68 6	91 4
	1,000	246 6	328 8

WARD BLENKINSOP & CO., LTD.

Tab. triple sulphonamide	500	80 0
	1,000	158 6



The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer
ESTABLISHED 1859

Published weekly at
28 Essex Street, Strand, London, W.C.2

TELEPHONE CENTRAL 6565

TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

Doctors and Drugs

SOME of the broad and liberal views on what should make up the training of a doctor that have been put forward at the first World Conference on Medical Education that opened in London on August 24 are worthy of study and emulation elsewhere. For example, if the ideal medical student is "cultured, broadly educated in the humanities, intelligent, and intellectual, of transparent integrity, humane and sympathetic and, above all, one who would love his profession as well as his fellow-men and all their weaknesses, joys and sorrows" that is how we would like to see also the pharmaceutical—and indeed any—student. Some of the desiderata are, we believe, already present, and others capable of achievement (and not always absent) though in the circumstances of today "broadly educated in the humanities" is an ideal difficult of realisation by students in any profession (and it must be remembered that many of them start out along a similar road, to branch out only later).

With the details of organised medical training it would be impertinent for outsiders to volunteer views, since the conference has brought together experts from all over the world to do just that. Only so far as medicine impinges upon pharmacy have we the right to hold opinions, but since, as Sir Lionel Whitby said, "knowledge has so accumulated as to demand early specialisation and to make it impossible for a man to be complete in all his subjects," the training doctors receive in pharmacy has a strong current concern to pharmacists. Happily the days are gone when a few hours given over to pharmaceutical operations left many a medical practitioner with the impression that there was nothing very difficult about it or that he had mastered all that was needful. Pharmacy is, after all, one of the specialised subjects and doctors in general practice, let alone those in hospitals, are coming more and more to rely on information about drugs, especially new ones, brought together and put before them by pharmacists. So far as the contacts of general practice are concerned, they are the contacts of equals, and there is no element of "teaching" in them, either on one side or the other.

But in hospitals, especially teaching hospitals, the pharmacist is quite commonly called upon to lecture to medical students on pharmaceutical matters. It is right that that should be so and it is encouraging, not only that the practice is increasing, but that new ideas on the methods of acquainting medical students with what they must know, for intelligent prescribing, of the

physical characteristics of drugs, the vehicles by which their therapeutic effects may be conveyed to the patient, and so on, are being applied in some London teaching hospitals. In exercising those teaching functions hospital pharmacists always should, as we believe they invariably do, bear in mind that their medical pupils will many of them be going out of hospital into general practice, where they will be meeting not hospital pharmacists but those in retail business. Pharmacy is, of course, one subject and there is, broadly speaking, one avenue of training. So long as the contacts and channels of communication remain as constant and open after qualification as they are before it, the pharmacy doctors learn from pharmacists in hospital will reflect an outlook that can only be to the good of both professions and of the community as a whole.

Overseas Trade in July

THE total value of United Kingdom exports in July was £234.4 millions, and re-exports amounted to £8.6 millions. Imports were valued at £293.0 millions, so that the excess of imports, valued c.i.f., over exports and re-exports, valued f.o.b., was £50.0 millions, against the monthly average of £73.7 millions for the second quarter of 1953.

The increase of £25.4 millions in United Kingdom exports in July over the average of the previous three months is largely accounted for by the longer working month—twenty-seven days against an average of twenty-four a month in the second quarter. Nearly all the improvement in July was in exports of manufactures, of which nearly all the groups showed an increase over the second-quarter level. Although the value of exports of the chemicals group as a whole was, at £11,875,815, higher than in any month since May 1952, drugs and medicines were at about the monthly average for the present year. Only proprietary medicines, at £582,525 out of a total of £2,523,421 for drugs, medicine and medicinal preparations, established a record for the year.

The month saw an improvement in shipments of drugs and medicines to both Australia and New Zealand. Exports to Australia of proprietary medicines were valued at £26,545 (against £7,926 in July 1952) and of other drugs and medicines at £168,013 (£81,698). India, however, was the United Kingdom's largest customer for those products, her purchases being valued at £39,415 and £159,937 respectively. Among the individual products for which separate figures are given in the "Trade and Navigation Accounts" there was no outstanding rise or fall on the monthly average for the year. As might be expected, most were higher than in the preceding month.

Exports of penicillin suffered a setback, the salts being valued at £131,788, injections at £150,048, and other penicillin preparations (tablets, lozenges, ointments, etc.), at £37,934. Antibiotics other than penicillin, however, were at the record value of £310,840. Medicinal products that maintained their average monthly rates for 1953 included insulin at £33,700; ointments and liniments, £92,962; sulphonamides, £185,085; aspirin, £52,869. Quinine exports, at £13,139, were well below average, but antipaludics, at £60,511, were higher, and brought the total for antipaludics for the seven months to £384,486.

Perfumery and toilet preparations, at £595,067, were

£50,000 up on June. Of the total, £171,534 was for cosmetics, and £112,133 for dentifrices. Essential oils, at £62,180, were at their highest export level since November 1952. Perfumed spirits exported were worth £53,018, and toilet soaps £182,173.

Total imports in July were £11 millions above the level of the first six months of 1953. In the chemicals group the value of menthol imported was £2,161, representing 1,348 lb., whilst drugs, medicines and medicinal products (manufactured or prepared) were valued at £425,299. France accounted for 25 per cent. of the imports of essential oils which from all sources were valued at £271,131.

A Question of Date

THE Town and Country Planning Act, 1953, abolishes development charges, subject to certain qualifications affecting operations begun on or after November 18, 1952. The purpose of development charges was connected with the general scheme of the 1947 Act that development rights should be taken away from private owners and vested in the State. To compensate owners for the loss of their development rights, a Central Fund of £300 millions was created, out of which claims were to be met. The time for the making of these claims

has long since gone by; most of the claims have been admitted, and the 1953 Act suspends in effect the right to payment of compensation for the loss of development rights out of the Central Fund. The question of when claims already admitted are to be met is left for Parliament to deal with subsequently.

The material date for the purpose of the Act is November 18, 1952. In cases in which a development charge was already determined, or an application for such determination was made, before that date, no development charge is payable if the first operation, or the first use as the case may be, covered by the determination or application was begun or instituted on or after that date. Exemption cannot be claimed in cases where the Board has refused to determine an application made before November 18, 1952, because it is not satisfied that the applicant could carry out the operations or institute the use within a period considered by the Board to be appropriate.

Where development charge not now called for has already been paid, it will in general be recoverable, unless the land has been compulsorily acquired and compensation for the acquisition has been paid or is payable, on the basis that, development charge having been paid, the land has an increased value by reason of the potential development covered by the charge.

Onward from Galen

A CURRENT CAUSERIE

THE Minister of Food has just made an Order (S.I., 1953, No. 1282) removing the last war-time controls on the milling of flour, so that from August 30 flour of any degree of extraction may be produced. However, extending the procedure introduced during the 1939-45 war, of fortifying flour with essential constituents, all flour of an extraction rate less than 80 per cent. must have iron as well as iron vitamin B₁ and nicotinic acid added to ensure a minimum content of respectively 1.65 mgm., 0.24 mgm., and 1.60 mgm. of those substances per 100 gm. of flour. *Creta præparata* is still to be added to all except wholemeal flour. The new flours available are expected to be as white as pre-war flours, but thanks to war-time initiative and the help of pharmaceutical manufacturers (who must expect an increase in home demand for vitamin B₁ and nicotinic acid) they will be nutritionally on a much higher plane.



BEFORE the war *The Times* occasionally published an advertisement supplement on a subject of merit. Since the war none has appeared until August 25. That fact gives added prominence to the publicity achieved by the Wellcome Foundation, Ltd., in their four-page announcement on that date concerning the Sir Henry Wellcome centenary (*C. & D.*, July 4, p. 5, and July 18, pp. 58-59). The supplement, which is liberally illustrated, will serve as a valuable record, not only of the life of the founder of a great undertaking, but of the contribution to research made by its commercial component, Burroughs Wellcome & Co., in both human and veterinary medicine, as well as to its overseas houses, and its medical and historical museums and library. It is understood that reprints of the supplement have been sent out to doctors, chemists and others on the mailing list of the company.



X-RAY studies of primitive diseased bones now being made in the United States at the Smithsonian Institution and Georgetown University Medical Centre, Washington, D.C.,

were instituted in an effort to discover when and where diseases like cancer, syphilis, tuberculosis and arthritis had their origin in ancient man. The research has been made possible by financial grants from the James Picker Foundation for Radiological Research. Evidence already accumulated indicates the presence of both tuberculosis and syphilis in American Indians prior to the time of Columbus. One of the next subjects of study to be undertaken will be of the skeletal remains of a prehistoric colony recently excavated in Panama. Its pathological specimens may, under x-rays, help to show whether certain diseases were prevalent on the North American continent or whether Europeans took them over. A special technique for radiographing ancient bones developed in the Medical Centre's x-ray department, is also providing a way for physicians to study bone specimens in advanced pathological stages, such as are rarely available in present-day clinics.



THE Department of Scientific and Industrial Research has drawn attention to the existence of "much valuable information" on the Fischer Tropsch synthesis process and its application in the chemical industry and freely available to those interested from The Director, Fuel Research Station, River Way, Blackwall Lane, London, S.E.15. Although the original discovery by Franz Fischer and Hans Tropsch in 1925 was that a petroleum-like product could be produced by reacting carbon monoxide and hydrogen, the main constituents of water gas, over a catalyst at 200° C., the production of liquid fuel only by that process in Great Britain would not be economic, it is suggested. However, the combined production of oil and such products as high melting-point waxes and oxygenated compounds might prove to be a sound proposition. Further, the possibility of large synthetic oil plants being erected in parts of the world where coal is cheap and imported oil costly should provide opportunities for British plant manufacturers.

MYSOLINE IN EPILEPSY

A Note on its Pharmacology

By L. R. C. HAWARD, D.Psy. (Leyden), M.A., B.Sc., A.B.Ps.S., A.M.Inst.E.

A PROMINENT step forward in the efficiency of anti-convulsant medication for epileptic disorders has been made by Dr. A. J. M. Butter, of St. David's Hospital, Edmonton, London, who has introduced Mysoline (5-phenyl-5-ethylhexahydro-pyrimidine-4:6-dione) into this field, either by itself or in combination with certain other approved anticonvulsants.

Difficulties in Medication

The difficulty of satisfactory medication in epilepsy is due partly to the wide variation in epileptogenic conditions, and partly to the prolonged course of treatment required. The physiological habituation that occurs after a long period of administration of certain anticonvulsants, the cumulative effect of some of the drugs, their side reactions and interactions with concomitant medicine all combine to make the prescription of an efficient and safe anticonvulsant a difficult and responsible task. Drugs effective in reducing the frequency of grand mal attacks, in which a complete convulsive seizure with loss of consciousness ensues, are seldom efficacious in curbing the less severe but incapacitating and more common petit mal. Conversely drugs for petit mal are seldom useful in grand mal. For patients who suffer from both forms the position is even more complex, and it is for them that Mysoline is likely to prove its value.

Over a period of fifteen months Mysoline has been successful in treating male adult epileptics whose fits had been most refractory to other drugs, and had not been controlled satisfactorily by phenobarbitone, soluble phenytoin, methoin, phenyl-methyl-malonylurea, bromides, belladonna, amphetamine sulphate, or combinations of these. The low toxicity of Mysoline is one of its most important characteristics, especially as drugs of equivalent potency which it may eventually replace suffer from the disadvantage that their toxic dose is often dangerously close to the therapeutic dose. Mysoline is normally prescribed alone, but in cases where it controls grand mal attacks but not petit mal attacks, its use in combination with aloxidone (Mali-done) is recommended. For severe cases Mysoline is sometimes used with soluble phenytoin. The transition from standard medication to treatment with Mysoline must be gradual, and the most effective method is to reduce the drug to be replaced as the dosage of Mysoline is increased over at least two weeks. The final dosage of Mysoline will vary according to clinical condition of the patient and his previous medication history. Up to the present it has ranged between 1 and 2 gm. a day, administered in divided doses.

Reactions to the drug vary according to medical history of the patient. The major complaint in the early days of the treatment is of listlessness and drowsiness, especially before breakfast. This eventually wears off in all but a small number of cases. Where the drowsiness persists, however, or even increases in severity, treatment must be discontinued immediately. Other reactions include nausea, slurred speech, and loss of co-ordination of the limbs, but these represent less than 2 per cent. of the cases studied. No other toxic symptoms have been observed, and no abnormalities have been discovered in the blood or urine of treated patients.

Statistical analysis of results showed that improvement occurred in all but a few severe cases. Attacks were either eliminated or their incidence was considerably reduced, and in those who showed no improvement in the incidence of fits, their general dysphoric level of health was replaced by a euphoria which could be construed as a general if not

a specific, improvement in the clinical picture. Since the patients chosen for research with Mysoline were those most refractory to treatment with other drugs, the results are most gratifying. Anticonvulsant medication, however, is not a cure. Patients will still be doomed to a lifetime of medication, unless some attempt at producing a cure is made. Unfortunately, the prime cause of many types of epilepsy is still obscure, although with the help of electronic apparatus the mechanism of the attack is understood. It appears to be a wave of electricity which sweeps over the brain as if the head had suffered a severe electric shock: indeed, one authority has described grand mal as self-electrocution. The electric shock wave is gradually built up in certain parts of the brain, and once a certain level, called the electroplexic threshold has been reached, it sweeps over the vital nerve centres, paralysing and disorganising them, and sending shock waves down the motor nerves to initiate the terrifying convulsions which form the basic characteristic of such an attack. The principle of efficient anticonvulsant medication is to raise the electroplexic threshold as high as is possible, commensurate with the normal functioning of the brain. This is brought about by the influence of the drug on the neuro-chemistry of the central nervous system. So long as the cause of this building up process remains, however, the potentiality of a cerebral discharge above the natural or drug-elevated electroplexic threshold is a constant danger. New hope has recently been raised by an extensive survey in America, which has proved that many of the cases of epilepsy arise from brain damage caused by compression of the cranium at birth. This brain damage has resulted in the short-circuiting or damming back of large numbers of electrical circuits in the brain, and it is here that the break through of the epileptic discharge will occur. Finding the cause has also resulted in finding the cure, and in this particular type of case delicate brain surgery can bring about a permanent cure. The time may come, therefore, when the surgeon will replace the pharmacologist in the treatment of epilepsy.

CORRESPONDENCE

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

HOW TO MEET A SCARCITY

SIR.—I was rather interested in Xrayser's remarks on hospital pharmacists (*C. & D.*, August 15, p. 155). Surely the way to increase the numbers of these is quite simple. Considerably increase the salaries (for example, double them) and all scarcity will immediately disappear. To my mind that is the only method of tackling the present serious shortage and no amount of arguing by committees will alter it.

LANCASTER

A. MEDCALFE

COINCIDENCE

SIR.—Each year the Council of the Pharmaceutical Society helps many young pharmacists by subsidising their tickets for the British Pharmaceutical Conference. That is most laudable: young, progressive pharmacists can learn much of value in the advancement of their careers. Unfortunately, however, the value of the gesture is in some instances vitiated for many hospital assistant pharmacists by the curious coincidence that their chief selects Conference week as part of his holidays, making it necessary for all his juniors to be on duty during the meetings.

TYRO

HOSPITAL PHARMACY FORUM

THE LOCUM PROBLEM

WE are all grateful to the locum tenens—the chap (or more often, the lady) who turns up to “hold the place” to allow us to have a holiday in the summer or to make life a little more tolerable when colleagues are sick in the winter. Sometimes, if we are lucky, we can persuade a former member of the staff, now enjoying the bliss of marriage, but as yet still childless, to come out of retirement and help us for a few weeks in exchange for a few guineas. At other times our Australian or New Zealand colleagues, entered on the Society's register under the reciprocity arrangements, will take on a job between trips to the Continent or the Lake District. Even a long-term locum may be found sometimes, though rarely. For the rest, we have to share the load, or bring in a student or a dispensing assistant. It is always worrying and it is always a “pot-luck” arrangement whether we have anyone really capable or not. Sometimes, with a severely depleted regular staff, the burden of looking after the locum is more onerous than it would be to struggle on without, especially when they can come for only one or two weeks. Yet for that doubtful help they are able to command 30 per cent. to 50 per cent. higher remuneration than the regular staff. Moreover, they are eligible to benefit by the superannuation scheme. What advantage is there, then, in being a “regular”? True, there are continuity of employment and a large measure of security, but a glance at the advertisement pages in the journals would reassure any locum that he need not be long out of work. Indeed, one's overseas friends travel a long way on the strength of being able to pick up work whenever they feel so disposed. To the pharmacist trying to make a career in hospital and hoping for a chief's job, of course a regular record of service is necessary, but how many pharmacists in the service at present are particularly anxious for that? Only a fraction, I fear. So, in the absence of inducement to regular enlistment we find the number of locums ever increasing. It is not too much to state that the hospital pharmaceutical service is being run on casual labour. Now the locums I have met are very pleasant people, mostly. They work honestly enough at the tasks given to them, but they carry no real responsibility for the good estate of the department. By the very nature of their contract they can offer little or nothing, even the best of them, in the way of long-term improvement of the service. Meantime, because the going is easy for them, their presence is masking the real seriousness of the staffing situation in our hospitals, and having a depressing effect on the standards in our departments.

MEDICAL ABSTRACTS

HORMONES AND WOMEN'S MOODS

A PROFITABLE hypothesis developed by Malleon (*Lancet*, 1953, 2, 162) is that the disturbances of mood some women experience at the climacteric, in pregnancy, at the premenstrual phase of the oestrous cycle, etc., are the effect of changed hormone ratio, particularly of oestrogen to progesterone. Acting on that hypothesis she has successfully treated many patients with very small doses (just enough to “tilt the balance” in a new direction) of oestrogens, androgens or progesterone. Menformon and oestrogen she found more satisfactory than more potent synthetic oestrogens of different chemical structure. The hormones were administered orally, and never more than three weeks out of four. When too large a dose was given, a temporary sense of well-being was apt to be created that could not be repeated or maintained. Progesterone was used in the form of ethisterone under the tongue, and androgens as methyltestosterone, also sublingually. Malleon makes the further suggestion that puerperal melancholia, though it does not seem to respond to hormonal treatment, might be forestalled by dealing, in the way described, with early disturbances of mood.

CHOICE OF ANTIMALARIAL IN NIGERIA

AFTER investigating the antimalarial drugs taken by non-native out-patients in Nigeria during the period November 1, 1951, to March 31, 1952, Nicol (*British Medical Journal*, 1953, 2, 177) finds that proguanil is the best drug to use in Nigeria now for the prevention of malaria. The dosage should be 200 mgm. daily for those of ten years of age and over and 50 mgm. for children under the age of one year, with proportionate intermediate doses. Quinine in daily doses of gr. 1-1½ was also satisfactory for infants. Proguanil or mepacrine in a daily dose of 100 mgm. in adults were better suppressives than quinine gr. 5 (320 mgm.) against the local strains of *Plasmodium falciparum*. Among adults who had taken an antimalarial regularly a history of malaria was reported as follows: those taking proguanil daily 100 mgm., 15 per cent.; 200 mgm., none; mepacrine, 100 mgm., 17 per cent.; quinine, gr. 4 or 5 (mgm. 260 or 320) 50 per cent. The number of individuals who had taken chloroquine was not statistically significant.

ECZEMA RATIONALLY TREATED

THE “old-fashioned practice” of treating acute, weeping or mild eczema with lotions, chronic or severe eruptions with pastes is regarded by Ingram (*Lancet*, 1953, 2, 149) as still sound. The “best lotion” is a bath—hand, foot, sitz or slipper—perhaps with potassium permanganate but certainly without subsequent rubbing with a coarse towel. For limited local application a ½-1 per cent. solution has its uses; in acute weeping conditions isotonic sodium sulphate solution or 2 per cent. boric lotion are valuable. At the next stage calamine lotion or terrasilica lotion is applied to the skin with a brush like whitewash—but “the lotio calaminæ oleosa of the National Formulary is of little use for the purpose.” An emulsion with more body is preferred, such as:—

Calamine	gr. 40
Lanolin	gr. 30
Olive oil	½ oz.
Lime water	to 1 oz.

The physical character of the application and the manner of applying are the important features, the purpose being to soothe, not to cure; to protect and not to attack. To that end pastes are the best local application for eruptions: Lassar's paste, for example, though “there should be more exactitude and uniformity about the dispensing of such pastes, which should be perfectly smooth and rather dry.” They should be used in that state and not softened by heating for the greater convenience of the nurse. “In this climate a paraffin with a melting point of 38-40° C. gives the most satisfactory paste. Emulsified bases have not ousted the older applications in this particular field, since penetration is not the aim, though for the scalp they have the advantage of facilitating removal. Internally, sedative mixtures may be given to relieve itching, for example:—

Potassium bromide	gr. 10
Aromatic spirit of ammonia	min. 15
Tincture of nux vomica	min. 8
Infusion of gentian	to ½ fl. oz.

Often the use of chemotherapy or antibiotics is necessary and effective, and the response to ACTH or cortisone is almost always dramatic, but with almost as regular relapse on cessation of the treatment.

AUROTHIOGLYCANIDE IN ARTHRITIS

BATTERMAN (*Journal of the American Medical Association*, 1953, 152, 1013) reports on a study of the effectiveness and toxicity of aurothioglycanide in a selected group of sixty-nine patients with rheumatoid arthritis. The author contends that therapeutic measures available for the treatment of rheumatoid arthritis must be re-evaluated, and those that have been recognised to be the most effective should continue to be used. The initial dose of aurothioglycanide in the group varied between 25 and 100 mgm.; the majority of patients began therapy with 50 mgm. of the compound given intramuscularly weekly. After at least three weeks, if no improvement or toxicity occurred, the dose was doubled. At the end of eight to ten weeks the dose was further increased if end of eight to ten weeks the dose was further increased if no improvement or toxicity had occurred. The weekly dose never exceeded 150 mgm. If there was no improvement at the end of approximately six months the gold injections were discontinued. In the patients who showed

improvement the maximum weekly dose was continued until the improvement was well-established. The patients were then divided into two groups. In one therapy was stopped and the patients observed in order to note relapse or continued improvement; in the other a maintenance dose (50-100 mgm.) of the drug was administered at two to four-week intervals. Twenty-six patients (37.7 per cent.) regardless of their stage of the disease, had a significant improvement with the initial phase of therapy. 56 per cent. of the patients with early arthritis showed complete remission or major improvement at the termination of initial therapy. The initial response was further enhanced by maintenance therapy—fifteen out of seventeen (88 per

cent.) patients so treated had a satisfactory end result. Maintenance after initial improvement is the recommended method for gold therapy. Sixty-one patients out of the original group of sixty-nine had no record of toxicity to gold compounds previously used. Toxicity was noted during the initial therapy in fifteen of those patients (24.6 per cent.). Of the eight patients in whom toxicity had occurred during previous gold therapy only five had toxic symptoms from the aurothioglycanide therapy and in only one case was the toxicity severe. The incidence, type, severity, and duration of toxic manifestations indicate that aurothioglycanide is less toxic than other available gold preparations.

PHARMACIES OF BRITAIN—15



THE PHARMACY OF LANGLEY STEPHENS, LTD., WEST BROMWICH

The Gothic Revival style does not seem to have been greatly favoured for pharmacies, but there are some notable exceptions, and the one shown in our drawing is particularly interesting as it has remained unaltered—except for the extra window added in front of the doorway leading to the back of the premises on their righthand side. The pharmacy was established about 120 years ago by John Bullus, whose brother had a surgery in the back premises, and there is no doubt that it was the first pharmacy in the town (there are today about nine in the High Street alone). In 1882, Isaac Withers acquired the business from the widows of the Bullus brothers. It then passed to Eric and Norman Withers, and was bought by Langley Stephens, Ltd., in June 1949. The carriageway at the left of the premises leads to the coach house where old Dr. Bullus used to keep his carriage, and amongst the accumulations of years in the back premises have been found the old doctor's dispensing bag and a skeleton that he used.

PADDINGTON GREEN CHILDREN'S HOSPITAL, LONDON and its Pharmacy Department

THE Paddington Green Children's Hospital grew out of the North-west London Free Dispensary, which was founded in Bell Street, Edgware Road, in 1862. Although patients too ill to attend the Dispensary were visited in their own homes, it was soon realised that a children's hospital in the north-west area was badly needed.

Early in 1883 two newly built houses were accordingly purchased in Paddington Green. Those houses, with a pleasant outlook on to the green, were made into one, and with minor alterations were opened as a children's hospital in August 1883. From that time the hospital has progressively developed. The wards and administrative offices still show much of the adapted building and there has been little room for expansion. For that reason the bed-complement is only fifty-two. There is, however, an annual out-patient attendance of about 38,000, and the out-patient department, rebuilt in 1932, is attractive, modern and well arranged. There is a convalescent home of twenty-four beds at Lightwater, Surrey.

In 1946 the hospital amalgamated with St. Mary's teaching Hospital, which is only a short distance away, and with which, even prior to that date, there had always been a close association. Today, Paddington Green is part of the St. Mary's Hospital paediatric unit, and takes its part in training the doctors-to-be. With Princess Louise Hospital, Kensington, it is, moreover, a training school for sick children's nurses. At present the unit has a regular exchange of a doctor with the Children's Hospital, Boston, Massachusetts, so that there is an American doctor on the staff, and that adds variety to the pharmaceutical work. There is also an exchange of doctors with the Paddington Maternity and Child Welfare department.

The pharmaceutical department of the Hospital is situated at the far end of the hospital, with easy access to the street. It consists of a fairly large, light and airy dispensary opening on to a small waiting hall, with a room adjoining containing a still, autoclave, hot-air oven, etc. Below is a large store room, well shelved, and with possibilities of expansion. Leading out of the store is an alcove containing a refrigerator and facilities for bottle washing and drying.

In addition to the drugs, the department is responsible for the anæsthetic apparatus, medical gases, baby foods and all the new types of dressings. The staff comprises two pharmacists and a full-time woman cleaner-porter. There is occasional help with heavy lifting by one of the hospital porters.

Since much of the work is for out-patients, the dispensary is laid out in such a way as to make the service as quick and efficient as possible, and stocks of skin preparations, nose drops, etc., are already packed and at hand to issue to patients. Cupboards and drawers are arranged in such a way as to facilitate finding contents quickly, and the main ointment cupboard is long and narrow, with sliding doors so that it is easy to see, at a glance, the labels of jars, never more than two deep on the shelves. There is a complete index of the department with cross references, notes as to peculiarities, keeping properties, etc. The location of the article is in pencil so that, if a change of place is made, it is only necessary to erase the old place and fill in the new. In addition to that index each shelf has a card for every item, and the cards are checked from time to time, thus simplifying the occasional checking of the complete index. There is a comprehensive filing system of pharmaceutical literature, and pharmaceutical and medical journals are available, for, as the Hospital is part of a

teaching unit, it is most necessary to keep abreast of pharmaceutical developments. The hospital uses the National Formulary when possible, but also has its own formulary to supplement where necessary. No preparation included in the supplementary formulary is similar to one in the N.F., therefore, there is no confusion of titles.

The life of a pharmacist in a children's hospital can be most interesting and satisfying—although often exacting.

Many of the newly-qualified doctors have had little experience with doses of drugs for children and ask, use and appreciate information from the department. There is very little published on the subject and Miss M. C. Islip, the chief pharmacist, is gradually collecting data which she hopes to publish from time to time.

It is the practice to check prescribed doses with the age of the child and if necessary—as in the case of many modern drugs—with the child's weight. Now that there are American doctors it is not at all unusual to get the common drugs (i.e., ephedrine, phenobarbitone, etc.) prescribed in milligrams . . . the shape of things to come!

Children have an extraordinary habit of swallowing unusual substances and the pharmacist is sometimes hurriedly called upon to identify or give information on all sorts of material. Often it is not easy at a moment's notice to get information on the substance swallowed: the parent rushes the child to hospital without bringing the container or some of the material, and valuable time is wasted in finding out what it is. Compared with the number of such cases, fatalities are luckily not numerous. It is of the utmost importance that where drugs are concerned the greatest care must be taken in their mode of issue and storage.

The Hospital wards are bright and cheerful, with plenty of toys and books, wireless and television for the older children. Parents are allowed to visit their children daily—a practice that was begun before the Ministry requested all children's hospitals to adopt it.

The atmosphere in a children's hospital can be very happy and homely, and that appears to be the case at Paddington Green. For the staff it is their chosen work.



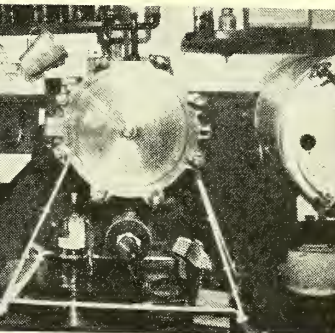
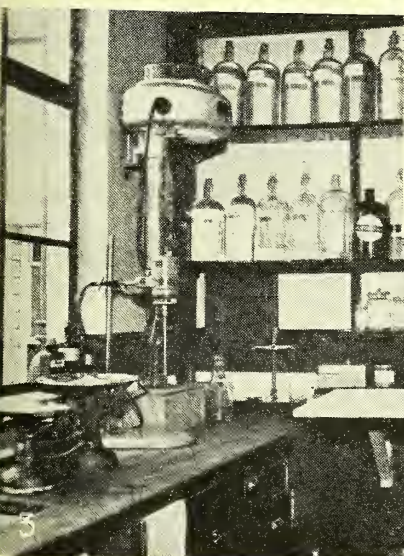
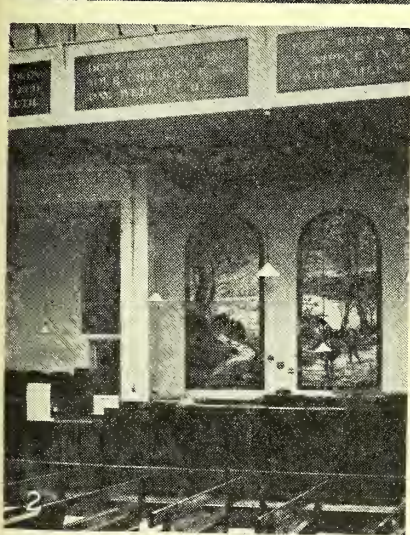
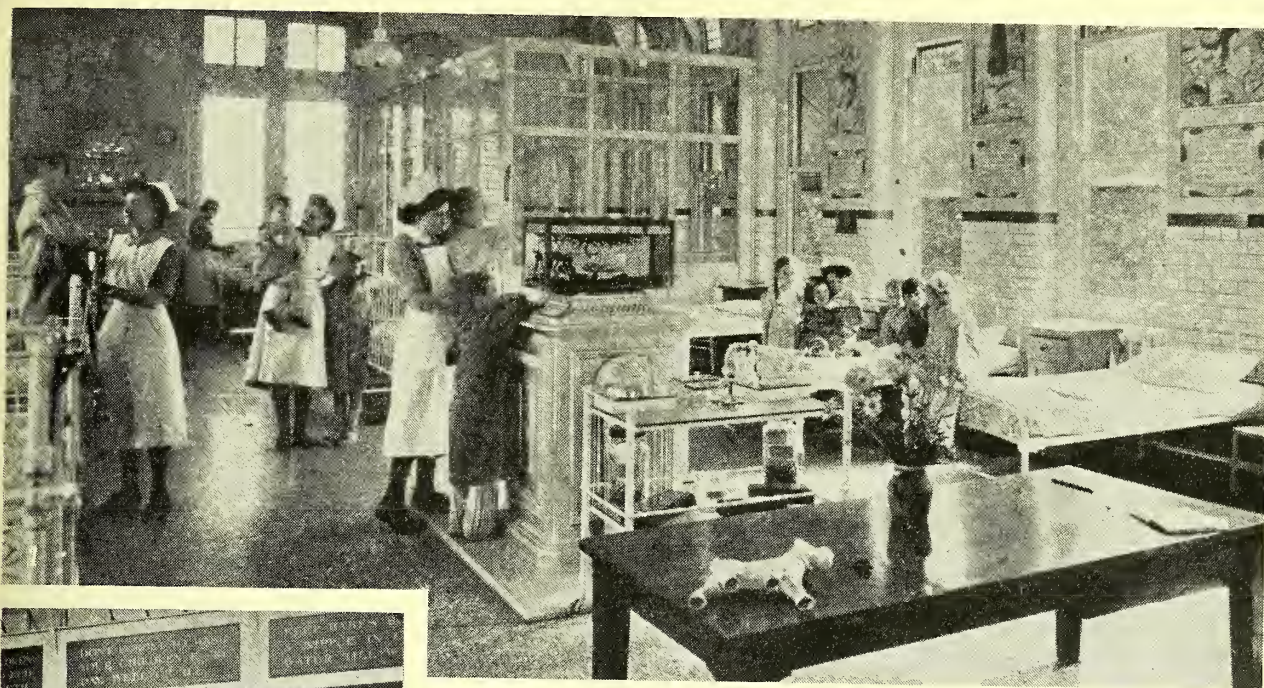
Miss M. C. Islip

SITS. WTD.

*I*N advertisements

*One can often sense
A dramatic change in life's policy.
That couple in Twickenham
—What happened to sicken 'em
To want a post "in or near Wallasey" ?
Take that locum. We see
After six weeks he's "free"
—Where's he been? P'rhaps he wasn't to blame!
And what is the goal
Of "used staff control"
Determined to transfer to Thame ?
But of all the themes
Of the hidden dreams
That the authors would like to arrange
The most poignant cry
That catches the eye
Is "Qualified, married, seeks change" !*

J.J.H.



AT PADDINGTON GREEN CHILDREN'S HOSPITAL: 1. One of the wards, decorated in pale blue or other light colour, with illustrated nursery rhymes as permanent murals, and an aquarium as a centre of interest. 2. Decorated panels similarly brighten the waiting room for the child out-patients, while their mothers learn from the panelled maxims (such as "Don't forget to wash your children every day, well or ill") above. 3. Sterile preparations room, with still and autoclaves. 4. Dispensary, showing one of two hatches through which medicines are handed out. Stock containers on shelves receive new labels once yearly. 5. Part of a basement storeroom for drugs and dressings.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have been added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, AUGUST 26: Trading in most markets continued on a small scale during the past week, the most activity taking place in CRUDE DRUGS. Even so in that market business was patchy and confined to a few commodities. The most important feature was provided by ERGOT for which Portuguese shippers advanced their quotations by 3s. a lb. Business was said to have been done on the basis of 21s. per lb., c.i.f., which represents a premium of 7s. over the price ruling a year ago.

Although first-hand sellers of SENEGA at origin still indicate higher prices, the market has eased through the activity of speculators who have shown a desire to unload some of their holdings. CASCARA SAGRADA and ALOES were unchanged. In SPICES various PEPPERS were easier; African GINGER was down by 2s. 6d. per cwt. but the Jamaican variety advanced by the same amount. CINNAMON for shipment rose because of a labour strike in Ceylon. Stocks of Sierra Leone CHILLIES are bare but the Mombasa and Zanzibar varieties are available. The new-crop Italian SQUILL is stated to be not so good in quality and also smaller than previous crops. ORRIS ROOT is scarce on the spot and the forward position is somewhat difficult. PAPAIN was reduced by 1s. per lb. Some holders of Indian HENNA have advanced their prices by 10s. a cwt. for the green leaves; the Sudanese was unchanged. Despite little business, MENTHOL recovered about 2s. a lb. on the week. The import figures for July (see p. 209) demonstrate the quiet conditions prevailing in the menthol market recently.

There were few price changes in the ESSENTIAL OILS market. Chinese PEPPERMINT eased 1s. per lb. on the spot. Ceylon CITRONELLA and East Indian LEMONGRASS both advanced by three-pence per lb.

Manufacturers of PENICILLIN and STREPTOMYCIN are reducing their prices to the home trade with effect from August 31. The amount of the reduction in the cost price to the retailer in the case of dihydrostreptomycin sulphate is sixpence per mega and in that of PENICILLIN (SODIUM and CALCIUM), fourpence per mega. New regulations made by the Government of Pakistan will prevent DIAMORPHINE being exported to that country.

UNITED STATES DRUG AND CHEMICAL REPORT

NEW YORK, AUGUST 25: In its first change since 1950, DI-ISOBUTYLENE was raised half a cent to 8 cents per lb. Lower per lb. is THIOUREA at 40 cents, down 6½ cents. The market for IODIDES remains quiet, with demand continuing on a routine basis. Demand for ACETONE is reported to be fairly strong.

There has been little change in the slow pace of activity in BOTANICAL DRUGS. AGAR was very firm at \$2.50 per lb. (up 10 cents). VANILLA BEANS continue strong, with whole Mexicans at \$5.75, up from \$5.15-5.45 range.

Higher among ESSENTIAL OILS are artificial SASSAFRAS at 48 cents (up 2 cents); PATCHOULI, \$7.25 (25 cents);

PINE, 10½ cents (half a cent); LAVENDER SPIKE, \$1.60 (15 cents); and 70-75 per cent. EUCALYPTUS, 72 cents (4 cents). Lower per lb. are CLOVE bud at \$6.00 (\$1); Florida ORANGE, 75 cents (10 cents); BOIS DE ROSE, \$3.95 (5 cents); SPEARMINT, \$7.25 (25 cents); PEPPERMINT, \$5.35 (5 cents), and CANANGA, \$10.00 (25 cents).

Pharmaceutical Chemicals

ANEURINE HYDROCHLORIDE. — Prices (per kilo) range from £46 for 1-kilo down to £45 15s. for 100-kilo lots.

ANTIMONY SALTS.—Quotations for POTASSIUM TARTRATE, B.P., are 7s. 6d. per lb. for 1-10 cwt. and SODIUM TARTRATE, B.P., 13s. 3d.

BENZAMINE. — B.P.C. LACTATE and HYDROCHLORIDE are 180s. per lb.

CARMINE.—Prices are from 72s. to 77s. per lb., according to quality.

ERGOMETRINE. — The MALEATE, B.P., is £45 per gm. and TARTRATE, £41 15s. per gm.

GUAIACOLS. — LIQUID, B.P., is 16s. 3d. per lb. for 28-lots; CRYSTALS, 16s. 9d.; CARBONATE, 18s. 3d.

HYDROGEN PEROXIDE.—Manufacturers' price for single carboys of 20 volumes is 4s. 6d. per gall.

HYOSCINE HYDROBROMIDE.—1-oz. lots are 95s. for British material.

HYPOPHOSPHITES. — Prices per lb. are unchanged as follows:—

SALT	7 lb.	28 lb.	1 cwt.
	s. d.	s. d.	s. d.
AMMONIUM ..	12 10	12 5	12 0
BARIUM ..	7 10	7 5	7 0
CALCIUM ..	5 11	5 6	5 1
IRON ..	12 1	11 8	11 3
MAGNESIUM ..	9 4	8 11	8 6
MANGANESE ..	10 11	10 4	9 6
POTASSIUM ..	7 11	7 6	7 1
SODIUM ..	6 7	6 2	5 9

LACTATES. — CALCIUM, B.P., is 2s. 7d. per lb. in 5-cwt. lots, and 2s. 8d. per lb. for 1-cwt. CALCIUM SODIUM, B.P.C., for the same quantities is 4s. 4d. and 4s. 5d. per lb. LACTIC ACID, B.P., in 12 Winchester lots is 4s., and 3 Winchester, 4s. 4d. per lb. Carboys are 3s. 9d. per lb.

LACTOSE.—English, in 1-ton lots packed in 1-cwt. paper-lined sacks is £137 per ton, delivered in the United Kingdom.

MAGNESIUM SULPHATE.—Quotations for B.P. in minimum 1-ton lots vary between £17 10s. and £20 per ton, according to size of crystal and manufacturer. Exsiccated is £34 per ton.

MAGNESIUM TRISILICATE. — In 28-lb. packages the prices (per lb.) are now as follows:—28-lb., 4s. 9½d.; 1-cwt., 3s. 10d.; 5-cwt., 3s. 8d. Bulk rates for larger quantities are from 3s. 4d. per lb.

MANDELIC ACID. — 1-cwt. lots in 28-lb. containers are 10s. 9d. per lb. The CALCIUM SALT is also 10s. 9d., while SODIUM is 11s. 3d. per lb. for 1-cwt. lots.

MENAPHTHENE. — B.P. is £14 per kilo. Water-soluble (menadione sodium bisulphite, U.S.P.), £19 per kilo.

MERCURY DERIVATIVES. — Quotations (per lb.) for 1-cwt. lots are: AMMONIATED, B.P., lump or powder, 21s. 9d.; PERCHLORIDE, B.P., powder, 19s. 8d.; SUBCHLORIDE, B.P. (calomel), 22s. 3d.; OXIDES, B.P.C., levigated, or yellow, B.P., 22s. 3d.

METHYLPHENOBARBITONE.—B.P. is 63s. per lb. (1-cwt. lots).

METHYL SALICYLATE. — In 5-cwt. lots, price is 3s. 2½d. per lb.; 1 cwt., 3s. 3d.; 56-lb., 3s. 3½d.

OXALIC ACID.—1-ton lots of British material are £138 per ton delivered.

PANCREATIN. — 1-cwt. lots, B.P. is now 8s. 6d. per lb. and U.S.P., 10s. 6d.

PAPAVERINE. — Synthetic HYDROCHLORIDE (British material) is £35 per kilo, nominal.

PHENOBARBITONE. — 1-cwt. lots are 24s. per lb.; SODIUM is 1s. per lb. more than above rates.

PHENOL. — Basic prices for crystals in drums is 1s. 4d. per lb., and for LIQUID, B.P., 1s. 3½d.

PHENOLPHTHALEIN. — Rates for 1-cwt. lots is 10s. 10d. per lb.

PHENYLACETIC ACID. — In 1-ton lots the price is now 5s. 6d. per lb.; 1-cwt., 6s. per lb. Perfumery grade, re-crystallised is from 8s. 6d. to 11s. 6d. per lb., as to quantity.

PILOCARPINE. — In 100-oz. (2½-kilo) lots prices are: HYDROCHLORIDE, 42s. 6d. per oz. (1,428s. 6d. per kilo); NITRATE, 38s. per oz. (1,340s. per kilo).

PIPERAZINE. — Quotations for HYDRATE are from 37s. 6d. per lb.

POTASH, SULPHURATED. — B.P.C. lump is 2s. 3d. per lb. for 1-cwt. lots.

POTASSIUM BROMATE.—In 5-cwt. lots 7s. per lb. In small quantities the prices range up to 8s. 9d. per lb.

QUININE.—Makers' rates (per oz.) for 100-oz. lots and over are as follows:—ALKALOID, 3s. 10d.; ACETYL SALICYLATE, 5s. 4d.; BISULPHATE and SULPHATE, B.P. 1932, 2s. 8d.; SULPHATE, B.P. 1948, 3s.; DIHYDROBROMIDE and DIHYDROCHLORIDE, 3s. 10d.; FORMATE, 4s. 8d.; GLYCEROPHOSPHATE, 4s. 5d.; PHOSPHATE, 4s. 4d.; HYDROBROMIDE and HYDROCHLORIDE, 3s. 5d.; SALICYLATE, 3s. 11d.; QUININE and UREA HYDROCHLORIDE, B.P.C., 4s.; TANNATE, 2s. 7d.

SANTONIN. — The following prices now apply in the home market, including Eire:—5-kilo lots, £63 per kilo; 2½-kilo lots, £54 10s.; 1-kilo, £66; 500 gm., £67 10s.; 250 gm., £69; smaller quantities, £72.

SODIUM CARBONATE. — B.P. exsiccated is 60s. 6d. per cwt.

SODIUM CHLORIDE. — Re-crystallised is 20s. per cwt.

SODIUM PHOSPHATE. — B.P. powder is 125s. per cwt.

STRYCHNINE.—Current rates per oz. are given in the following table:—

SALT	Under 25 oz.	25 oz. 99 oz.	100 oz. 499 oz.	500 oz. and over
	s. d.	s. d.	s. d.	s. d.
ALKALOID, B.P.C.	7 10	7 8	7 6½	7 5
BISULPHATE ..	6 8	6 6	6 4½	6 3
HYDROCHLORIDE, B.P.	7 5	7 3	7 1½	7 0
NITRATE, B.P.C.	7 5	7 3	7 1½	7 0
PHOSPHATE ..	8 6	8 4	8 2½	8 1
SULPHATE, B.P.C.	6 11	6 9	6 7½	6 6

STEARATES.—Prices for minimum 1-ton lots are as follows:—ALUMINIUM (all grades), £246 per ton; CALCIUM (precipitated), £224; LEAD (30 per cent.), £226; LITHIUM, ordinary quality, £453; MAGNESIUM, £245; ZINC, £247.

Crude Drugs

ACONITE. — Spanish napellus is 3s. 2d. per lb., duty paid, ex wharf.

ALOE. — Prime Cape on the spot is 165s. per cwt.; shipment, 156s., c.i.f.

ANTIMONY. — English, 99.6 per cent., £237 10s.; 99 per cent., £255 per ton.

ARECA NUTS. — Quotations are about 45s. per cwt. for spot material.

ASAFETIDA. — Persian block is £15 per cwt., duty paid.

BENZON. — Good quality Sumatra block on the spot is scarce at £30 per cwt. No. 1 for shipment, £27, c.i.f.

BISMUTH. — In minimum 4-cwt. lots metal is 17s. per lb.

BUCHU. — New-crop for shipment is 1s. 9d. per lb., c.i.f., and 2s. for spot.

CARDAMOMS. — Aleppy greens for August-September shipment are 8s. 6d. per lb., c.i.f., and 9s. 6d. for spot.

CASCARA SAGRADA. — New-crop offers for shipment at 230s. to 240s. per cwt., c.i.f. for September shipment. A parcel now landing is offered at 252s. 6d., in bond.

CASSIA BARK. — Whole on the spot is about 100s. per cwt., in bond, and for forward delivery, 82s. 6d., c.i.f. Broken, 75s., in bond, and 65s., c.i.f.

CHAMOMILE. — Belgium white new-crop is from 6s. 3d. to 6s. 6d. per lb., spot.

CHERRY BARK. — Thin natural is from 1s. 9d. per lb., duty paid, and rossed, 2s. 2d., on the spot.

CHILLIES. — Mombasa are 280s. per cwt. on the spot, and 270s., c.i.f. Zanzibar are 275s. spot, and 260s., c.i.f. Sierra Leone not offering.

CINNAMON. — Ceylon for shipment (c.i.f.), OOOO, 2s. 7½d.; OOO, 2s. 6½d.; OO, 2s. 5½d.; O, 2s. 3½d.; firsts, 2s. 0½d.; seconds, 1s. 11½d.; thirds, 1s. 10½d.; quillings 1s. 4d.; featherings 10½d.; chips, 6d. per lb.

COCHINEAL. — Black brilliant is 8s. 7½d. per lb. and silver grey, 7s., spot.

COCILLANA. — Bark is 1s. 9d. per lb., spot.

COLCHICUM. — Corms on spot are offering at 2s. 3d. per lb., and seeds, 6s.

ERGOT. — Portuguese for shipment is 21s. 6d. per lb., c.i.f., nominal.

GALANGAL. — Spot material is 90s. per cwt. with forward offers at about 80s., c.i.f.

GINGER. — African on the spot, f.a.q., 90s. per cwt. and for shipment, 82s. 6d., c.i.f. Jamaican No. 3 is 110s. on the spot, and 102s. 6d., c.i.f., for shipment.

GUAIACUM RESIN. — Quotations are about 3s. per lb. for spot material.

HENNA. — Indian green leaves are at 85s. per cwt., and 82s. 6d., c.i.f.; brown leaves, 65s., spot. Sudanese are 100s., spot.

IPECACUANHA. — Colombian is 39s. 6d. per lb., c.i.f., and 42s. 6d. spot. Matto Grosso, 45s., c.i.f., prompt shipment; 47s. 6d., spot. Nicaraguan for shipment is 44s. per lb., c.i.f., and spot, 47s. 6d.

KOLA NUTS. — African halves are available on the spot at 4½d. per lb., 3½d., c.i.f., for shipment.

LANOLIN. — B.P. anhydrous is £175 per ton and hydrous, £155.

LIQUORICE. — Natural whole root, spot; Anatolian, 55s. per cwt.; Russian, 38s.; Syrian, 40s. to 42s. 6d. Block juice quotations are 185s. per cwt., delivered. Turkish stick is 240s. and Italian stick, 475s. per cwt., both duty paid.

LOBELIA. — Herb is offered at 2s. 7d. per lb., spot.

MACE. — West Indian pale blade is 7s. 9d. per lb., for shipment, 6s. 11½d., c.i.f.

MASTIC. — Tears (f.a.q.) are 12s. 6d. per lb., on the spot.

MENTHOL. — Brazilian is 37s. per lb., and Chinese, 38s. 6d., duty paid, spot. Shipment (c.i.f.): Brazilian, 32s. 3d., Chinese, 33s.

MYRRH. — Aden selected sorts are quoted at £16 per cwt. on the spot. Siftings are from £7 10s. to £8 10s., and granulated, £13.

NUTMEGS. — West Indian 80's quoted at 2s. 9d. per lb. on the spot and 2s. 6d. c.i.f., for shipment.

ORANGE PEEL. — Thin-cut is 2s. 2d. per lb., duty paid.

ORRIS ROOT. — Offers of average quality Florentine are 160s. per cwt., nominal, ex-warehouse.

PAPAIN. — Spot values for East African grade one are 35s. per lb., and grade two, 32s. per lb.

PEPPER. — White Sarawak is 8s. per lb., spot, and 6s. 4½d., c.i.f., prompt shipment. Black Malabar is quoted on spot at 1,000s. per cwt. Black Sarawak, spot, 7s. per lb.

RHUBARB, Chinese. — Spot offerings include: round Shensi at 12s. 3d. per lb.; rough round high dried, from 3s. 6d. to 6s. for medium quality.

SAFFRON. — Mancha superior is about 155s. per lb.

SARSAPARILLA. — Jamaican native red afloat is offered at 2s. 6½d. per lb., c.i.f., and spot, 2s. 9d.

SEEDS. — ANISE. — Spot, Cyprian is 140s. per cwt.; Turkish, 140s., duty paid, and 135s., in bond. CARAWAY. — Dutch is steady at 83s. 6d. per cwt., duty paid in London. CELERY. — Indian is quoted at 1s. 11d. per lb., spot London. CORIANDER. — Market continues quiet. Spot, Moroccan, 60s. per cwt., duty paid, and 55s., in bond. English is 70s. Morocco quoting 50s. per cwt., c.i.f. London, for prompt shipments. CUMIN. — Quiet. Spot quotations are: — Cyprian, 135s. per cwt.; Maltese, 155s.; Moroccan, 152s. 6d., duty paid.

DILL. — Indian is 85s. per cwt., spot London. FENNEL. — Unchanged with sellers of Indian at 177s. 6d. per cwt., spot London. FENUGREEK. — Moroccan quoted at 47s. per cwt., duty paid, in London. MUSTARD. — English, 62s. to 80s., according to quality.

SENEGAL. — Offers for August-September shipment are from 14s. 9d. to 16s., c.i.f., according to seller. Spot material has sold at 15s. 3d. per lb.

SENNA. — *Timevelly* LEAVES: number 1 on the spot, 11½d. per lb.; number 2, 10d., and number 3, 8d. PODS, f.a.q., are about 1s. per lb. on the spot and 9½d., c.i.f., August-September shipment. Hand-picked range from 1s. 8d. per lb. ex wharf. *Alexandrian* PODS, manufacturing, 1s. 10d. to 2s. 3d.; hand-picked, 3s. to 4s. 6d.

SERPENTARIA. — Root is offered at 40s. per lb. on the spot.

SHELLAC. — Firm. Spot quotations are: — F.O.T.N., pure, 252s. 6d.; F.O. standard No. 1, 260s.; fine orange, 265s. to 290s. per cwt., ex-London warehouse.

SLIPPERY ELM BARK. — Selected slabs are 3s. 9d. per lb., and grinding quality, 3s., spot.

SQUILL. — Italian white on the spot is 60s. per cwt.

WAXES. — BEES. — Dar-es-Salaam spot, 430s. per cwt., August-September shipment, 405s., c.i.f.; Sudanese and Abyssinian, 365s., c.i.f., spot, 420s., duty paid; Benguella, 370s., c.i.f., and 420s., duty paid. CANDELLA. — Spot is 635s. per cwt. CARNAUBA. — Prime yellow on the spot is 1,225s. per cwt.; afloat, 1,190s., shipment, 1,170s., c.i.f.; fatty grey is 940s. on the spot; shipment, 880s., c.i.f.

MONTAN. — Reibek crude on the spot is 125s. per cwt. OURICURI. — Spot 0.5 per cent. impurities, 715s. per cwt. — SPERMACE. — Case lots are 1s. 9d. per lb. upwards as to quantity.

Essential and Expressed Oils

AMBER. — Rectified on the spot is quoted at from 1s. 6d. per lb.

ANISE. — Spot supplies are offered at from 5s. 9d. per lb.; forward, 5s. 3d., c.i.f.

BAY. — W. Indian is 8s. 6d. to 9s. per lb. on the spot.

BERGAMOT. — Spot value is about 82s. per lb.

CITRONELLA. — In original drums prices (per lb.) are: — Ceylon, spot, 3s., and shipment, 3s., c.i.f.; Java, spot, 3s. 10½d., in bond, and shipment, 3s. 9d., c.i.f. Formosa, spot, 3s. 8d. in bond and 3s. 5d., c.i.f.

CLOVE. — English-distilled bud is about 70s. per lb. for 5-cwt. lots. Madagascar leaf is 9s. 6d. per lb., duty paid, and 9s., c.i.f., for shipment. B.P. is offered at 17s. 6d. per lb.

COD-LIVER. — B.P., is 10s. 6d. per gall. in charged returnable drums. Veterinary is from 9s. 6d. per gall.

CORIANDER. — Russian-seed oil is 150s. per lb.

CUBE. — English-distilled and imported is offered at from 50s. to 55s. per lb.

CUMIN. — Quotations for English-distilled oil are about 75s. per lb. and imported 70s.

DILL. — B.P. English-distilled oil is quoted at 60s. per lb. Imported oils are offered at from 30s. to 40s. per lb., as to origin.

LAVANDIN. — Spot value is 17s. per lb.

LAVENDER. — French, 40-42 per cent. linalol on the spot is about 44s. per lb.

LAVENDER SPIKE. — Spanish is about 11s. per lb.

LEMONGRASS. — East Indian is 6s. 9d. on the spot and 6s. 6d. per lb., c.i.f.

LIME. — Supplies of West Indian distilled are offered from 45s. to 50s. per lb., on the spot.

NUTMEG. — English-distilled oil is from 42s. 6d. to 44s. per lb. Imported oil is offered at 25s. per lb., duty paid, for drum lots.

ORANGE. — Spot offers for sweet vary as to quality and quantity from 9s. to 10s. 6d. per lb.

ORIGANUM. — In original containers the price is 14s. per lb.

OTTO OF ROSE. — Anatolian is offered on the spot at 240s. per oz., and Bulgarian, 480s., nominal, ex warehouse.

PALMAROSA. — East Indian is from 42s. 6d. per lb., on the spot, and 37s. 6d., c.i.f.

PENNYROYAL. — Quotations are about 12s. per lb., duty paid.

PEPPERMINT. — *Arvensis*: Chinese is about 24s. per lb. spot and 21s. 9d., c.i.f., prompt shipment; Japanese, 26s. spot and 25s., c.i.f.; Brazilian, 15s. 6d. spot and 13s. 6d., c.i.f. Italian "Mitcham" type oil is 49s. to 52s. 6d. per lb., as to quality; forward from 47s. 6d., c.i.f.

PETITGRAIN. — Paraguay on the spot is from 17s. 6d., per lb., and for shipment, from 16s. 6d., c.i.f.

ROSEMARY. — Spanish oil on the spot is about 5s. 6d. per lb., duty paid, for B.P. quality.

RUE. — Spot offers are about 15s. per lb.

SAGE. — Spanish is offered at from 8s. 6d. to 9s. per lb., spot.

SANDALWOOD. — Mysore is 70s. per lb. for 3-case lots.

SASSAFRAS. — Brazilian natural is offering at 5s. 6d. per lb. on the spot.

SPEARMINT. — Offers of B.P.C. quality are from 62s. 6d. per lb.

THYME. — B.P.C. is about 9s. 6d. per lb.

VETIVERT. — Bourbon in original drums on the spot is about 110s. per lb.

WORLD TRADE

Pakistan Bans Diamorphine Shipments.—The Government of Pakistan has prohibited the bringing in or taking out of Pakistan of diacetylmorphine. The trans-shipment at any Customs port of any packages containing in any form or packing of diacetylmorphine has also been prohibited.

U.S. Drug Exports.—The U.S. Commerce Department has announced that a number of drugs, including certain antibiotic and sulphonamide preparations for external use, can now be shipped to most foreign countries under a general licence instead of an individual export licence. But exporters of the drugs in bulk, parenteral and powder dosage forms would still need individual export licences to send them overseas. The Department also announced it was relaxing restrictions on cortisone, adrenocorticotrophic hormone (ACTH), synthetic hormones, bacitracin, and some other drugs, and would permit their export "in any form."

Brazilian Exports to Britain.—The Cotton Sales Commission, appointed in February to handle sales of cotton purchased by the Financing Commission, has been empowered to dispose, at international prices, of all products such as carnauba wax, acquired by the government under the price support programme. Total Brazilian exports to the United Kingdom have increased in value to £10,092,527 during the first five months of this year from a monthly average of £1.3 millions in 1952. Licences issued to export to U.K. in April and May included the following: Bois-de-rose, £15,036 (4,880 kilos); ipecacuanha root, £9,429 (1,900 kilos); peppermint oil, £11,174 (3,318 kilos); sassafras oil, £416 (1,095 kilos); menthol, £965 (255 kilos).

Indian Opium Industry.—Exports of prepared opium increased from 25 tons during 1947-48 to 35 tons in 1948-49, 172 tons in 1949-50 and 348 tons in 1950-51. There was, however, a sudden drop to 167 tons in 1951-52. During the last five years, sales of alkaloids within the country recorded a continuous rise. Five hundred and fifteen lb. were sold in 1947-48; 648 lb. in 1948-49; 1,341 lb. in 1949-50; 1,430 lb. in 1950-51 and 1,198 lb. in 1951-52. Sales of alkaloids to foreign countries, which were insignificant in 1947-48 and 1948-49, shot up to 374 lb. in 1950-51 and 1,479 lb. in 1951-52. Opium is prepared at the Ghazipur factory in Uttar Pradesh from crude opium in two forms. One is intended for export and the other is meant for quasi-medical purposes in India, technically known as excise or abkari opium and sold to State Governments. The import of opium is prohibited, and the Government's policy is to export it purely for medical and scientific purposes. Limited quantities are however exported to Pakistan for quasi-medical purposes. In addition to meeting the entire internal demand for these opium derivatives during the last several years, the Ghazipur factory has secured a foothold for its alkaloids in some important markets in the West, the Middle East and the Far East.

COMING EVENTS

Thursday, September 3

CHEMICAL PLANT EXHIBITION, Olympia, London, W.14. Open until September 17.

ASSOCIATES' SECTION, ULSTER CHEMISTS' ASSOCIATION, 73 University Street, Belfast, at 7.45 p.m.. Beetle drive.

PHARMACEUTICAL CONFERENCE

All functions of the British Pharmaceutical Conference 1953, unless otherwise stated, are being held at Grosvenor House, Park Lane, London, W.1.

Monday, August 31

- 10.0 a.m. Coffee.
- 11.0 a.m. Opening session and chairman's address.
- 1.0 p.m. Luncheon.
- 2.15 p.m. Science session.
- 2.15 p.m. Ladies' excursions.
- 4.0 p.m. Tea for those at science session.
- 4.30 p.m. Science session (continued).
- 7.30 for Reception by local committee in County Hall, London, S.E.1, followed by dancing (academic dress and decorations).
- 7.45 p.m.

Tuesday, September 1

- 9.30 a.m. Symposium session — "Containers and Closures."
- 9.30 a.m. Ladies' excursions.
- 1.0 p.m. Luncheon.
- 2.15 p.m. Science session.
- 2.15 p.m. Ladies' excursions.
- 4.0 p.m. Tea for those at science session.
- 4.30 p.m. Science session (continued).
- 7.15 p.m. Conference banquet.

Wednesday, September 2

- 9.30 a.m. Science session.
- 12.0 noon and 1.0 p.m. Luncheon at Royal Festival Hall, London, S.E.1.
- 1.30 p.m. Conference excursion—"London River." Embark from Royal Festival Hall Quay. Evening free.

Thursday, September 3

- 9.30 a.m. Science session.
- 9.30 a.m. Ladies' excursions.
- 10.0 a.m. Branch Representatives' meeting in Liverpool Victoria Building, Southampton Row, London, W.C.1.
- 1.0 p.m. Luncheon.
- 2.15 p.m. Ladies' excursions.
- 2.30 p.m. Branch Representatives' meeting (continued).
- 8.0 p.m. Visit to Royal Festival ballet.

Friday, September 4

- 10.0 a.m. Closing session.
- 11.0 a.m. Coffee.
- 2.15 p.m. Sports.
- 8.0 for Conference ball at the Savoy Hotel, Strand, London, W.C.2 (Embankment entrance).
- 8.30 p.m.

The Moor Park golf club, Rickmansworth, Herts, is providing facilities for the Edmund White golf trophy competition and the Conference tennis tournament on September 4. The London challenge cup bowls match is being played at Watford.

WILLS

MR. F. W. HORNBY, Ph.C., 1 Southlea Avenue, Southbourne, Bournemouth, left £14,779 (£14,701 net).

MISS D. OWEN, M.P.S., Bronala, North Road, Carnarvon, left £2,245 (£2,204 net).

MR. T. P. PARKER, M.P.S., 11 The Horse-shoe, Dringhouses, York, left £12,421 (£7,061 net).

TRADE MARKS

From the "Trade Marks Journal," August 12

For all goods (5)
METHAJADE, 718,237, by Sharp & Dohme, Ltd., Hoddesdon.

For disinfectants (5)
DESOL, 718,279, by Chapman & Son (Grimsby), Ltd., Grimsby.

For toilet mirrors (20)
CHIC CHEC, 718,731, by Kigu, Ltd., London, N.W.10.

From the "Trade Marks Journal," August 19.

For detergents (3)
NAPPI-WITE, B700,623, by Nappiwite, Ltd., London, W.1.

For soaps (3)
CHALET, 714,525, by Associated Exports, Ltd., London, E.C.4.

For non-medicated toilet preparations (3)
Device of holly leaf, 715,900, by Joao Guimaraes, Oporto, Portugal. HELUAN, 717,464, by Dr. Wurmbock, G.m.b.H., Munich, Germany.

For preparations in tablet form for cleaning artificial dentures (3)
EUCRIDENT, 717,363, by Eucryl, Ltd., Southampton.

For cough syrups, lozenges, gargles and nose drops (5)
CETAMUIM, 704,325, by Vick Chemical Co., Delaware, U.S.A.

For insect repelling preparations (5)
MOSQUITOX, B713,287, by Wigglesworth, Ltd., Westhoughton.

For pharmaceutical preparations (5)
NALGIA, 715,669, by Boots Pure Drug Co., Ltd., Nottingham. PEGASUS, 715,874, by B. C. & W. Products, Ltd., London, E.C.4. AMPHEDASE, 718,853, by Parke Davis, & Co., Detroit, U.S.A.

For pesticides and herbicides (5)
MALATOX, PENTATOX, PENTASAN, MALOCATE, 716,222, 718,929, by Pest Control, Ltd., Bourn, Cambs.

For first-aid boxes, surgical dressing, medical and surgical plasters and bandages (5)
DESA, 717,585, by Domestic Science Association, Ltd., Bournemouth.

For medicines for human use containing iron (5)
FERRONATE, 717,597, by Matthews & Wilson, Ltd., 6 Cole Street, London, S.E.1.

For insecticides (5)
TENSOL, AEROSTAN, 718,001-05, by the Standardised Disinfectants Co., Ltd., London, S.W.1.

For disinfectants (5)
ESSFLOR, 718,090., by James Nelson Grant, Edinburgh.

For all goods (5)
FUMAVLON, 718,156, by Imperial Chemical (Pharmaceuticals), Ltd., London, S.W.1. CALMA-PLEX, CALA-PLEX, 718,786-87, by Calma-Vite Laboratories, Ltd., London, E.C.2.

For insecticides and fungicides (5)
TRIGOSAN, DRISAN, 719,411-12, by Farbenfabriken Bayer, A.G., Leverkusen, Germany.

PRINT AND PUBLICITY

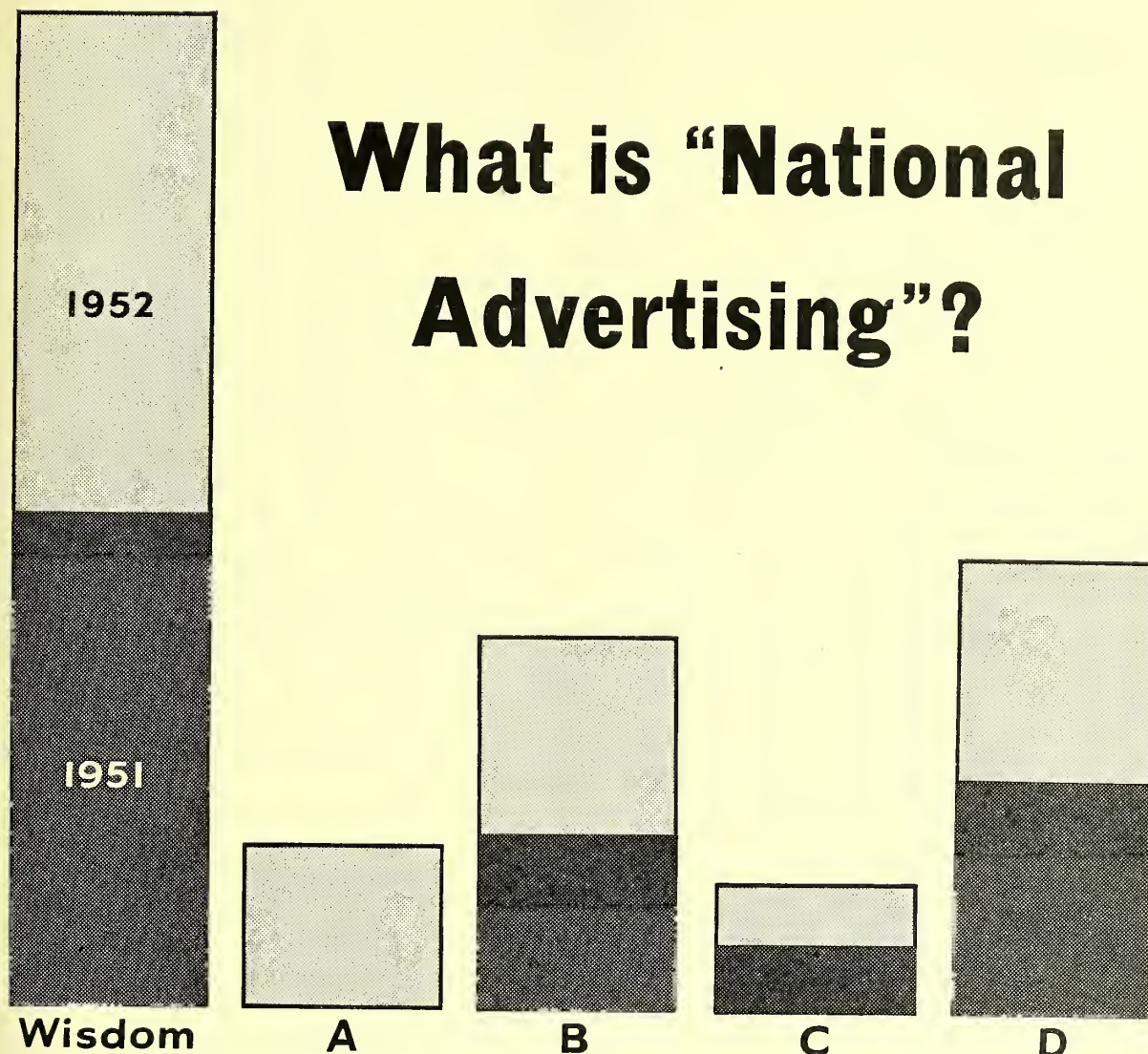
Advertising Campaigns

BURROUGHS WELLCOME & Co., 183 Euston Road, London, N.W.1: A 4-p. advertisement in *The Times*, August 25, to celebrate the Wellcome centenary. The advertisement consisted of illustrated articles on The Wellcome Foundation, Ltd., the life of Sir Henry Wellcome, the Wellcome Trust, scientific research, museums, etc.

SAVORY & MOORE, LTD., Standard Works, Lawrence Road, Tottenham, London, N.15: In the national and Sunday newspapers for Dr. Jenner's absorbent lozenges, Medilax and Dental.

ULSTER (BRADFORD), LTD., AND THE TEASDALE CHLORODYNE CO.: Extensive advertising of N.H.O. herbal ointment, N.H.O. herbal suppositories and Acacian balsam.

What is "National Advertising"?



Compare the weight of Wisdom's advertising support with that of four other leading brands. The light grey part of each column represents 1952—the dark grey indicates 1951.

THE words "national advertising" can be used to describe a 1-inch advertisement which appears once in a single periodical or newspaper—provided this circulates all over the country.

In fact (as you have probably noticed) this is roughly what is meant by quite a lot of firms who claim they support their products with "national advertising."

It is not, however, what Wisdom means by national advertising.

The sum Wisdom spends in advertising support to the retailer is published regularly, as in the case of every other toothbrush. The diagram above shows Wisdom's figures for 1951 and 1952 compared with those of other leading brands. When you look at these we think you will agree it is hardly surprising that Wisdom sells roughly twice as fast as the next most popular brand.

This year Wisdom advertising support is heavier than ever before.



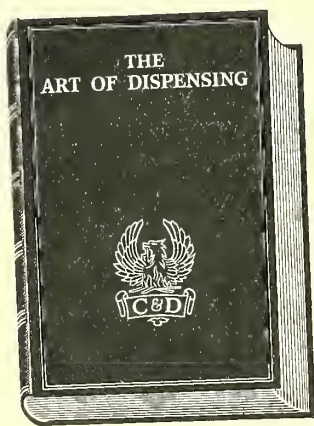
NOW AVAILABLE

*A Modern Version of
an Old Favourite...*

The Art of Dispensing

First published 1888
Completely re-written

1953



"The Art of Dispensing" is the most economical, complete and up-to-date manual dealing with the pharmacist's work at the dispensing counter.

This treatise on the methods and processes involved in compounding medical prescriptions has proved of untold value to generations of pharmacists and may, indeed, be regarded as the classical work on this subject.

Many of the difficulties and perplexities met with in the daily practice of the art and craft of pharmacy are explained in simple yet concise fashion. This book is a necessary part of the equipment of every dispensary.

New ideas have been incorporated and scientific knowledge has been added to the art formerly based on skilful training during apprenticeship and from experience gained in pharmacies of international repute.

Price 21s.
(Postage 9d.)

Order from your Bookseller or direct from The Publisher:

The
CHEMIST AND DRUGGIST

28 ESSEX STREET ... STRAND ... LONDON, W.C.2

**People
must breathe
and
Children
love to
TOUCH**

The nicest way to prevent any sort of contamination of your goods is to use Waterhouse Display Cases. They are smart and dignified. They are made of gleaming glass and enhance the quality appearance of everything you sell . . . and what good business they bring to you.

Mrs. Everywoman thinks . . . and says . . . "Such a lovely shop, so nice my dear to get positive cleanliness." Friend comes along . . . two customers where there was one before, and soon a bigger business for you and more profits.

It's worth a 'phone call or a note isn't it? Get in touch with us, the name is

SHOPFITTERS (LANCASHIRE) LTD.

DISTRIBUTING ORGANISATION OF
WATERHOUSE
Makers of Fine Shop Fittings

BULL BRIDGE, ACCRINGTON, LANCs.

Telephone: ACCRINGTON 4238-9

Flexile

**HAND OPERATED
FILLING
MACHINE**



One hand lever operates pump and valve. One operator can fill 25 to 30 gross of tubes per day. Fills all size tubes for $\frac{3}{8}$ " to $1\frac{1}{4}$ " diam. Pump stroke adjustable to give exact volume required. Special nozzles available to fill jars or bottles. Tinned Copper Hopper; gunmetal valve and pump. Easily cleaned—requires little bench space. Minimum maintenance.

Price with one nozzle **£36**

Demonstration gladly arranged

Whatever the product — Flexile make the tubes.

FLEXILE METAL CO. LTD. 796 Holloway Road, N.19

Tel.: ARC. 1138

**BEATSON**

BAKELITE CAPPED

Champagne Oils

These bottles greatly enhance the presentation of packed oils. They are available in 2½ oz., 5 oz., 10 oz., and 20 oz. capacities.

BEATSON CLARK & CO., LTD.

Glass Bottle Manufacturers

ROTHERHAM

Est. 1751

YORKS



"The Sign of a

Good Bottle"



The logical answer to feeding patients in prone or propped up positions. The lidded feature prevents mess and spillage and controls flow. Made in Ivory Melamine, durable, easily sterilised. Wholesale 50/- per dozen, retail 5/11d. each. Full surround label and sales making crownners in each ½ dozen box.

Teacher Beaker

The cleanest way to teach baby self-feeding. Practically spill-proof—controlled flow—hygienic. Pastel shades. Wholesale 31/4d. per dozen. Retail 3/11d. each. Advertisers in National Publications.

Order from your medical equipment or sundries wholesaler
Made by J. L. CAPLIN LTD., 178, Homerton High Street, E.9

3 MACHINES IN ONE! ANALYSES ADDS & LISTS

REGNA

the CASH REGISTER to RECKON WITH from £90 H.P. TERMS

THE REGNA CASH REGISTER CO.
Proprietors: The Joeli Safe Co. (London) Limited
Telephone: TRAfalgar 3718
7 York Place, Adelphi, London, W.C.2

TONGUE DEPRESSORS

★ SUBSTANTIAL PRICE REDUCTIONS effective immediately. Take advantage of these for the coming season's requirements.

IMPORTED—PRE-WAR QUALITY

Size 6 in. x ½ in. x 2 mm. thick. Danish beech, perfectly finished. Over six million were sold last year without a single complaint. Boxed 100's. Minimum order 10,000.

Annual contracts may be spread over a year, entitling buyers to reduced prices, and deliveries as required. Write for details.

APPLICATORS, hitherto unobtainable, can now be supplied from stock, shipments having recently arrived.

Wholesale Houses only supplied.

ASHWOOD TIMBER INDUSTRIES LTD.

Specialists in Veneer and Plywood Products for all Trades.

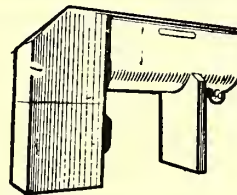
IBEX HOUSE, MINORIES, LONDON, E.C.3
Tel.: ROYal 2494 Cables: ASHTIM, LONDON

Have you a MIXING problem?

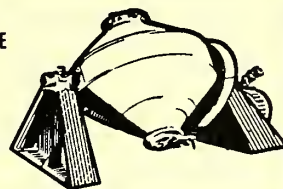
Here is the
**LARGEST
MODERN
RANGE
OF MACHINERY**



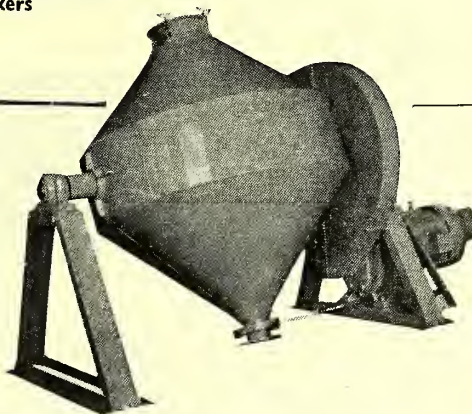
VERTICAL
OR
HORIZONTAL



DRUM TYPE
OR
DOUBLE
CONICAL

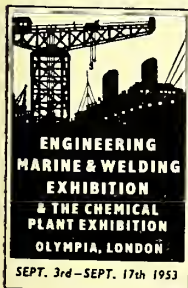


Standard
DOUBLE CONE
Mixers



GARDNERS *of Gloucester*

By continuous research into methods and materials, Gardners range of mixing machinery is kept abreast of modern developments, and the standard designs available cover the majority of known manufacturing processes. Machines can be designed for special purposes. Backed by this large range and the experience of nearly a century in powder processing, Gardners can offer an unequalled service to manufacturers. Please let us know your requirements or let our fully equipped laboratory test your materials in confidence.



The DOUBLE CONE Mixer is rapidly becoming popular for the mixing of dry products, especially materials liable to be damaged by the paddles of trough mixers. More recent uses include colours, dyes, resins, pharmaceutical products, fertilizers, tobacco, flour, grain and food products.

No vanes or blades are used, the material being blended by the rolling and folding motions when falling from the smooth interior of one cone to the other. Each cone is shaped to give different trajectories to each particle resulting in rapid and complete blending.

WM. GARDNER & SONS (GLOUCESTER) LTD., BRISTOL ROAD, GLOUCESTER

Telephone : Gloucester 21261

Telegrams & Cables : "GARDNER GLOUCESTER"

LONDON OFFICE : 1 Albemarle Street, London, W.1.

Telephone : Grosvenor 8206

Eye Appeal...

Is easily applied to
YOUR PRODUCTS, with
DISTINCTIVE LABELS

from

SUTTLEY & SILVERLOCK

(Branch of Kelly's Directories Ltd.)

ANDOVER
Hants

LABELS • CARTONS • PRINTED STATIONERY



**ampoules
tubes and vials**
to all Standards



The FRANCO-BRITISH GLASS CO. LTD.,

15-17, KING STREET, ST. JAMES'S, LONDON, S.W.1
Telephone: TRAfalgar 4151

NEW DESIGN
**CHRISTMAS
WRAPPING PAPER**

CARRIER BAGS

Samples & prices on application to :-

COLOROLL LTD.

72 TOTTENHAM COURT ROAD,
LONDON, W.1

MUSEum 0655



VACCO Vacuum Vessels

All the models in our range are fitted with VACCO refills of extra high thermal efficiency. This ensures minimum temperature change—hot contents keep piping hot and cold contents keep icy cold.

MADE IN ENGLAND

Enquiries to :

VACCO LIMITED

Grosvenor Gardens House, Grosvenor Gardens, London, S.W.1.

WIDE MOUTHED
2 PINT
VACUUM
JAR
Model J.101

2 PINT
VACUUM
FLASK
Model Q.F.

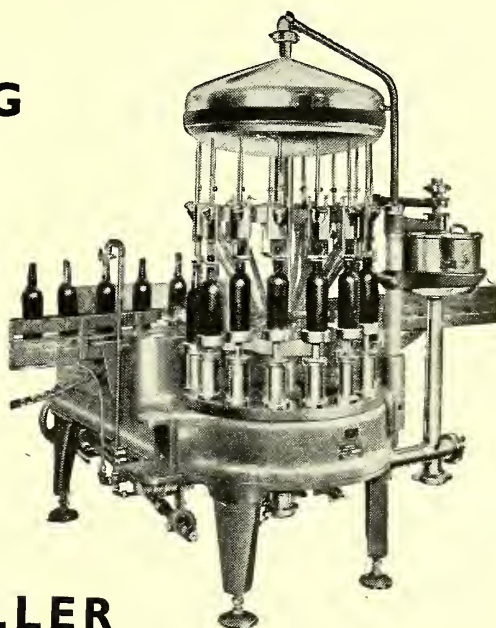
1 PINT
VACUUM
FLASK
Model S.C.

1 PINT
PLASTIC
VACUUM
JUG
Model P.J.

FAST . . . FOOLPROOF FILLING

*for Medicines, Antiseptics,
Lotions, etc.*

- ★ Fully Automatic.
- ★ Foolproof valveless vacuum-operation
- ★ 15 Heads—Output up to 100 bottles per minute
- ★ Full details on request



ALBRO

VACUUM-OPERATED

15-HEAD ROTARY FILLER

ALBRO FILLERS & ENGINEERING CO. LTD., Wharf Road, Ponders End, ENFIELD, Mddx.
Telephone: HOWARD 2622

EPHAZONE

TABLETS

Rational, symptomatic treatment in
ASTHMA & BRONCHITIS

Each tablet contains Ephedrine, the important anti-spasmodic for bronchial spasm, Theobromine, for its relaxing effect on the bronchial muscle and for stimulation of the coronary circulation, Phenazone, for its soothing effect on the higher centres, and Calcium gluconate, a readily absorbable calcium salt, for diminishing capillary permeability and checking the secretion of mucus.

These active ingredients with complementary effects in bronchial asthma are presented in the following proportions in the 'EPHAZONE' Tablet:

Ephedrine				
hydrochloride	-	-	-	$\frac{1}{4}$ grain
Theobromine	-	-	-	$\frac{1}{2}$ grain
Phenazone	-	-	-	1 grain
Calcium gluconate	-	-	-	$\frac{1}{4}$ grain

This preparation is sanctioned for prescription under N.H.S.

EPHAZONE LTD. 59 Brook St., London, W.1. Tel: Mayfair 5496

**FOR TABLET CARTONS
DISPLAY BOXES
SHOWCARDS**

**WE ARE THE PEOPLE
TO CONSULT**

**SEND YOUR PACKAGING
PROBLEMS TO**

CARTON BOX & PRINTING CO LTD

EVERY KIND FOR EVERY USE	HIGH CLASS COLOUR PRINTING CARTONS BOXES DISPLAYS	PHONE STO.5255 5256
--------------------------------	---	---------------------------

BRINKSWAY • STOCKPORT

Be on top of your World, too!

Members of the 1953 British

MOUNT EVEREST EXPEDITION

carried



10d. per packet

Now available in four flavours; Standard (Lemon), Lime, Orange or Strawberry



"Sweetheart"

"Drinkrite"

DRINKING STRAWS

special **SMALL PACKS** of 25, 50 and 100 straws.
Order now and **INSIST** on these brands for **QUALITY**.

HYGIENIC DRINKING STRAWS CO. LTD.,
LARKHALL, Lanarkshire

TO REMIND YOU

take advantage of
regular advertising

Tokalon BEAUTY PREPARATIONS

Tokalon Limited, 24 Gilbert Street, London, W.1



WHAT IS BEST?

Agfacolor

processed and finished by
TEMPO LABORATORIES LTD

80 St. JOHNS ROAD
TUNBRIDGE WELLS
TELEPHONE: 21019

FULL TRADE DISCOUNT

Leda Chemicals Ltd.

WHARF ROAD, PONDER'S END

take pleasure in announcing that owing to the expansion of their business they are removing on September 1st to their new site at:

**ELEY ESTATE, ANGEL ROAD,
EDMONTON, LONDON, N.18**

TELEPHONE: EDMONTON 6322/3/4

TELEGRAMS: LEDAKEM, LONDON



These large and commodious works which have been in the course of construction for the last 18 months are now almost complete and embody the most modern ideas on the construction of buildings to be used specifically for housing chemical plant. The plant installations, too, are the most modern of their type, and in addition to works buildings and ancillary service buildings a spacious laboratory block has been built incorporating a specially equipped pilot plant laboratory for the rapid production of works size samples of new chemicals in the course of investigation.

Leda Chemicals Ltd., will now be in a position to offer on a much larger scale and in a much wider field those services to industry, including the chemical industry, on which their reputation has been built.

*A concise survey of the most modern methods
of medicine*

DISEASES AND REMEDIES

Ninth Edition **Completely Rewritten**

Price **15/-** (postage 4d.)

- First published in 1898. Previous editions have made their major appeal to retail pharmacists, assisting them in counter prescribing.
- Today, such an orientation would be misplaced and uninformative, since the medicaments used in treating many diseases may be used only under medical supervision.
- The policy adopted has been to provide pharmacists, whatever branch of the calling they follow, with a text-book of information concerning the treatment of diseases and the drugs used.
- Accepted methods of treatment are explained, and the medicaments mentioned include some that have been introduced only within the last twelve months.
- Retail and hospital pharmacists are helped to discuss pharmacology and its effect upon therapeutics with their medical colleagues.
- Pharmacists in manufacturing laboratories are enabled to understand the purposes behind manufacture and research in their own field.
- Those engaged as representatives calling upon medical practitioners will find DISEASES AND REMEDIES a text-book that can readily be used for reference purposes.
- DISEASES AND REMEDIES will also commend itself to the attention of nurses, physiotherapists and other medical auxiliaries.

May be obtained from any Bookseller or direct from the Publisher


**The
CHEMIST AND DRUGGIST**

28 ESSEX STREET, STRAND, LONDON, W.C.2.



**OVER 18 MILLION
PEOPLE WILL SEE THE
NEW ADVERTISING
NOW APPEARING
IN NATIONAL AND
SUNDAY PAPERS**

FOR THE FOLLOWING
SAVORY & MOORE
QUALITY PRODUCTS

Dr. JENNERS

Absorbent Lozenges
for Indigestion

MEDILAX

Laxative Pellets

DENTURAL

Denture Cleansing
Solution

**ARE YOU READY
TO SUPPLY?**

Write now for Bonus Terms
and details of Free Display
Matter

Savory & Moore

Standard Works, Lawrence Rd., Tottenham, N.15



At five to six months of age babies make the change-over to mixed feeding—and more and more of them are going on to Bovril Brand Weaning Food.

You, too, can make a big change-over. Stock this quick-selling new product. Tell mothers about it. Explain how excellent it is. When travelling and on holiday a packet can be carried in a purse. A meal for Baby made in a single minute.

**BOVRIL WEANING FOOD
is a winner because it is:**

*recommended by doctors and clinics
made in cube form
nourishing and easy to prepare
ideal when travelling and on holiday
very economical
vigorously advertised*

BOVRIL BRAND TRITURATED
BEEF AND VEGETABLE

Weaning Food

Retail price **6D.** 4 cube packet

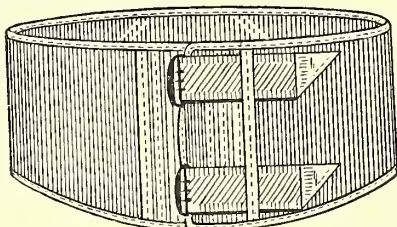
For full particulars of trade terms please write to:—

BOVRIL LIMITED, OLD STREET, LONDON, E.C.1

CLIFTON — BRAND — SURGICAL BELTS

for Warmth and Support

Also
ELASTIC HOSIERY, TRUSSES
SUSPENSORY BANDAGES and SUNDRIES



SURGICAL APPLIANCES AND
CHEMIST'S SUNDRIES
N.H.S. ALL TYPES

Personal attention by
CHARLES WILLIAMS & CO
Proprietor: A. G. PRICE
STONE STREET, BEESTON, NOTTS

FERRIS & COMPANY, LTD.

BRISTOL
MANUFACTURING AND
WHOLESALE CHEMISTS

The House in the West for all Chemists' Supplies. Send us your orders for prompt and careful attention.

REGULAR ROAD DELIVERIES
in the West of England and S. Wales areas.

Telephone: BRISTOL 21381

Telegrams: FERRIS BRISTOL

SURE-SELLING STOCK!

OVER 150 YEARS REPUTATION

KEARSLEY'S

THE ORIGINAL

WIDOW WELCH'S FEMALE PILLS

Over 10d BOX PROFIT by ordering 1 dozen 4/1 size. Bonus given on every dozen (13). It pays to push this size.

Established 1787
in the Reign of
King George III

C. & G. KEARSLEY LTD.
71 DARTMOUTH ROAD, LONDON, S.E.23



N.V. SOCIETEIT VOOR
CHEMISCHE INDUSTRIE
"KATWIJK"
KATWIJK - AAN - ZEE
HOLLAND

Producers of:

CAFFEINE AND SALTS

THEOBROMINE AND SALTS

THEOPHYLLINE AND SALTS

London Agents:

GREYER, BRECHEISEN & CO., Ltd.
BUSH LANE HOUSE, CANNON STREET
LONDON, E.C.4. Telephone: MAN 9030

Bombay Agent:

STANDARD DRUG & CHEMICAL CO.,
174 Hornby Road, Fort, Bombay

Calcutta Agent:

H. D. NAG, 36 Beniatola Lane, CALCUTTA

Madras Agent:

THE DOLLAR CO., 337 Thambu Chetty St., G.T. MADRAS

Specialise in the manufacture of Quality Tablets of every kind, and of Contraceptive Foam Tablets of the highest standard.

Quotations gladly submitted.

Buckley

Bowker Tablet Co.

LIMITED EST. 30 YEARS

29 PARKFIELD STREET · LONDON · N · 1 · Telephone Canonbury 3401

Ammonium Carbonate

Chalk—Precipitated and Prepared

Cresylic Acid · Coal Tar Disinfectants

Emulsifiers · Magnesium Carbonate (Pond.)

Synthetic Detergents · Naphthalene

Toluene · Xylene · Zinc Oxide

DUNN BROTHERS'

SUCCRS. LTD

1 BOOTH STREET, MANCHESTER

Established 75 years

Keep them skipping fit Mother!



EDME
with **"Autumn Sun"**
EXTRACT OF MALT
WITH COD LIVER OIL
The finest protection for chills and ills

Have you seen

THIS

**new beautifully designed
show card size 23" x 17½"
in 6 bright colours?**

Supplied with two side panels each 17" x 10½" the whole making an attractive window display, or can be used separately as counter show cards.

NOW IS THE TIME

to make a window display and ensure a steady flow of repeat orders for **"AUTUMN SUN,"**

the Malt and Oil with the taking flavour.

The complete set is **FREE**; ask our representative or write direct, sent post free.

EDME LIMITED

IMPERIAL HOUSE

84-86, REGENT STREET, LONDON, W.1.

Works: Mistley, Essex.

"ROADMASTER" NIGHTDRIVING GLASSES

—The new accessory that
every Motorist wants!

Manufacturers: **FISH OPTICAL CO. LTD.** ★
McNeish House, 261 HARROW ROAD, LONDON, W.2
Tel.: CUNNINGHAM 8318 & 8267

★ Makers of the world-famous 'SUNGARD' Sunglasses

HAVE YOU GOT YOUR COPY OF:

This book incorporates Rouse's Synonyms and contains over 7,000 Synonymous terms. It is a most useful book of reference. 5/- postage 4d. from

The Chemist's Dictionary of Synonyms?

THE CHEMIST AND DRUGGIST · 28 ESSEX STREET · STRAND · LONDON · W. C. 2

Show 'Elasto' — It Sells on Sight! ★

Elasto
THE BIOCHEMIC TABLET

Retail Price
(incl. P.T.)
5/8d. and 22/7d.

ELASTO advertising is widespread and consistent. A steady demand for this fine product is being created at your very door. Link up with this vigorous campaign by reminding your customers that **YOU** can supply. Your **PROFIT IS ONE SHILLING AND SEVENPENCE** on each sale!

★ Novel Display Stand free on request
NEW ERA LABORATORIES LTD.
CECIL HOUSE · HOLBORN VIADUCT · LONDON

For acidosis...
recommend

Rayner's
Lembar

all the year
hot or cold



Lemons

Glucose

Scotch Barley

Sugar

MADE BY RAYNER AND COMPANY LIMITED, LONDON, N.18



A GOOD PRODUCT

that is

REGULARLY ADVERTISED

and brings you

REPEAT SALES.

Dirty Paws

Non-Gritty Hand Cleanser

KAY BROTHERS LIMITED, STOCKPORT

STANDARD SYNTHETICS LIMITED

Distillers of ESSENTIAL OILS since 1923

Manufacturers of AROMATICS, PERFUME
BASES AND FLAVOURS.

We specialise in CINNAMON BARK OIL,
JUNIPER BERRY OIL,
WINTERGREEN OIL,
FRENCH LAVENDER OIL,
TERPENELESS LEMON OIL,
PEPPERMINT OILS, PERFUME
BASES, ETC.

76 GLENTHAM RD., BARNES
LONDON - S.W.13

Telephone: RIVerside 3616

Managing Director:
JOHN LESLIE HINDLE, B.Sc.



GRAPEFRUIT OIL

LEMON OIL

ORANGE OIL

PEPPERMINT OIL

SPEARMINT OIL

GALE & MOUNT LTD

37 ROTHSCILD ROAD, LONDON, W.4

Telephone: CHIswick 6628/9 Telegrams: Salmenta, Chisk, London

READY SHORTLY

A REVISED AND IMPROVED EDITION

OF

Pharmaceutical Emulsions and Emulsifying Agents

By L. M. Spalton, B.Pharm., M.P.S.

Now Bound in cloth and fully indexed

TODAY, the pharmacist is faced with an almost bewildering assortment of emulsifying agents, all having varying properties and requiring different methods of treatment.

In this book the considerable range of these products has been classified, together with essential practical points about their pharmaceutical use. It contains chapters devoted to the theory of the formation of emulsions, properties of different emulsifying agents (classified into groups according to their structure and characteristics), the formulation and preparation of emulsions, the general methods of preparing emulsions with details of technique and causes of emulsion separation, preservation and storage of emulsion, etc.

The practical uses of emulsifiers is dealt with at considerable length, together with methods of handling each type of emulsifying agent and full notes of incompatibilities and other matters.

The book also contains a classified index of over 300 emulsifying agents used in the Drug, Toilet and Cosmetic trades and other industries, with reference to their composition, type and uses, together with an index of manufacturers.

Useful and up-to-date—this book provides essential information in concise form.

★ Every Pharmacist should possess a copy 7/6 Postage 4d.

Order through your bookseller or direct from the Publisher :

The

CHEMIST AND DRUGGIST

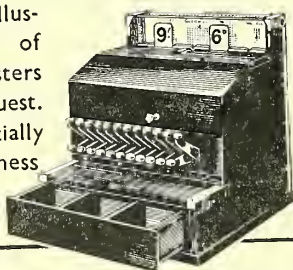
28 ESSEX STREET, STRAND, LONDON, W.C.2

GETTING DOWN TO DETAILS

The Detail Strip on a Gledhill (Type A.D.) Cash Register is a unique feature providing a permanent record of each sale and permitting the classification of all transactions. It is a witness to the assistants' accuracy, enables the proprietor to check every single transaction and gives an accurate mechanically added sub-total or grand total at any period.

A fully informative illustrated Catalogue of Gledhill Cash Registers will be sent on request. There is a model specially designed for your business

**BRITISH MADE
FOR 60 YEARS**



G. H. GLEDHILL & SONS LTD
28 TRINITY WORKS, HALIFAX.

PERSONAL WEIGHING MACHINE NO LOOSE WEIGHTS

Capacity 24 stone \times 1 oz. divisions. Hardened steel knife edges and bearings. Complies with local Weights and Measures regulations.

Finished in white enamel.

Also available

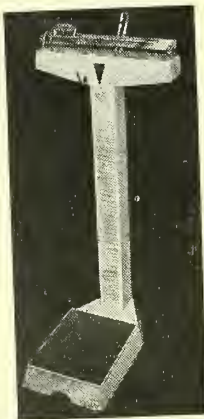
COMBINED BABY & TODDLER WEAHER

Capacity 60 lb. \times $\frac{1}{2}$ oz. divisions. No loose weights.

Extra large perspex Baby Basket.

Hygienic and easy to clean.

Finished in white enamel.



Please send for illustrated leaflet

HERBERT & SONS LTD.
38 CHARTERHOUSE ST., SMITHFIELD, E.C.1

Telephone: Clerkenwell 2812 (6 lines)

BRANNAN GUARANTEED THERMOMETERS

CLINICAL - HOUSEHOLD - INDUSTRIAL
When ordering Thermometers, insist upon Brannans — made by highly skilled workers at Britain's most modern Thermometer Factory.

S. Brannan & Sons Ltd.

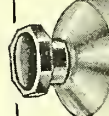
Clinitherm Works,
Dalmain Road, Forest Hill,
London, S.E.23

Telephone: Forest Hill 3414 P. Ex.

Northern Factory:

Cleator Moor
West Cumberland

Tel.: Cleator Moor 310



COLLAPSIBLE TUBES OF TIN, LEAD, ALUMINIUM AND TINPLATED LEAD

Collapsible Tubes from Stock, in 1 gross lots and above, for Chemists and Laboratories who make their own creams and ointments.

Price list and samples upon request

IMPAX WORKS (Mail Order Department)
Browells Lane, FELTHAM, Middlesex
Telephone: Feltham 4211 (2 lines)

Dyanese FADELESS DYES

2½d. STOCKING (except Black) .. 20/- gross
4d. COLD WATER, CURTAIN
and Black Stocking Dyes .. 32/- gross
Order Dyes and Shade Cards from our Agents
Gt. Britain: W. B. Cartwright Ltd., Rawdon, Leeds
N. Ireland: T. McMullan & Co., Ltd., 42 Victoria
Street, Belfast. Eire: May Roberts (Ireland) Ltd.,
Grand Canal Quay, Dublin, C.6.



ADAPTOPLAST

Nowadays practically everyone appreciates the advantages of, and uses, this modern type of dressing.

"ADAPTOPLAST," with its Dressing Pad impregnated with 'Euflavine,' a most soothing medicament for wounds and burns, promotes extremely rapid healthy healing. In addition, the open sides of "ADAPTOPLAST" ensure that the necessary adequate ventilation is provided.

Tins.	Retail.	9d. and 1/6d.	Trade price	6/5d and 12/10d.	dozen.
	1-yard lengths		1 1/2"	2/1d.	yard 18/- doz.
	in dispenser		2 1/2"	2/10d.	" 24/4d. "
	cartons		3"	3/4d.	" 28/8d. "

Include "ADAPTOPLAST" in your next Plaster Order—
£5 Parcel less 2 1/2%, £10 Parcel less 5%.

DISTRIBUTED THROUGH CHEMISTS & DRUGGISTS ONLY.



A PRODUCT OF *Cuxson Gerrard & Co. Ltd.* OLDBURY

BIRMINGHAM.

A STANDARD REFERENCE BOOK
FOR PHARMACISTS

PHARMACEUTICAL FORMULAS

VOL. 1

A new edition of this invaluable standard reference book has now been published. Completely revised and incorporating the latest formulations required by recent advances in medical science, it presents a comprehensive summary of vital pharmaceutical information compiled from world-wide sources.

PRICE 37/6

(Postage 1/1)

Order from your bookseller or from the publisher.

The
CHEMIST AND DRUGGIST
28 ESSEX ST., STRAND, LONDON, W.C.2

BIG SALES from this
NEW BOTTLE

safety
shape

good
looking

natural
grease
solvent

powerful
germ
killer

kind to
delicate
skins



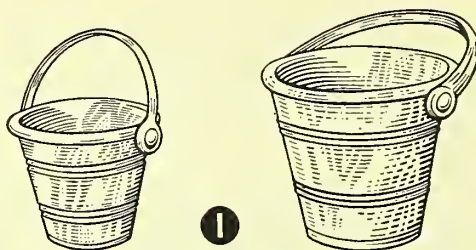
This first class selling line now has the additional appeal of the new safety shape bottle. The strong advertising campaign in the National and Provincial press and magazines with the National Poster campaign ensures big sales—stock up NOW with:—

DRUMMER PINE

Made by **DISINFECTANT**
WM. EDGE & SONS LTD., BOLTON

CANNON RUBBER

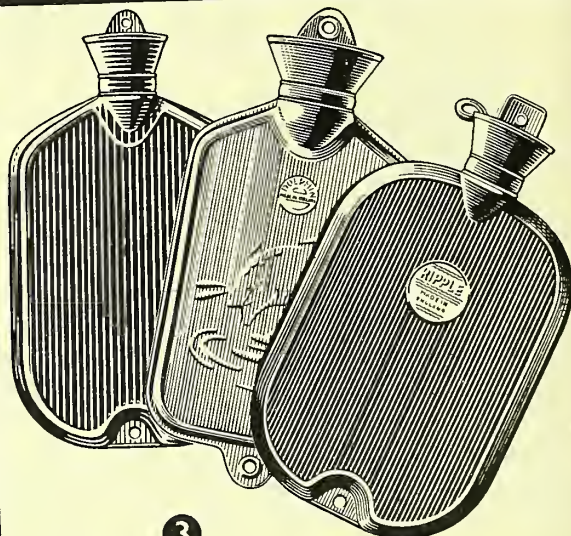
QUALITY AND VARIETY



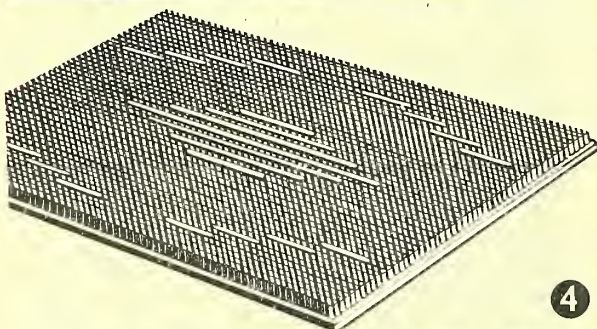
1



2

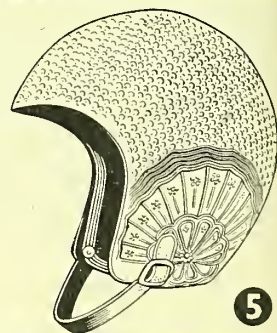


3

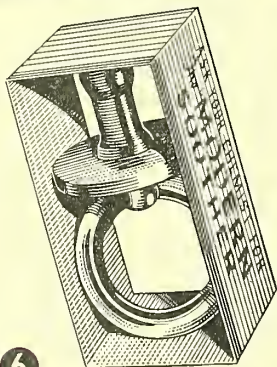


4

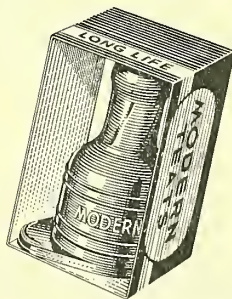
- 1 RUBBER BUCKETS
- 2 CHILDREN'S HOT-WATER BOTTLES
- 3 HOT-WATER BOTTLES
- 4 MULTI-PURPOSE MAT
- 5 BATHING CAPS
- 6 'MODERN' SOOTHER
- 7 'MODERN' TEAT



5



6



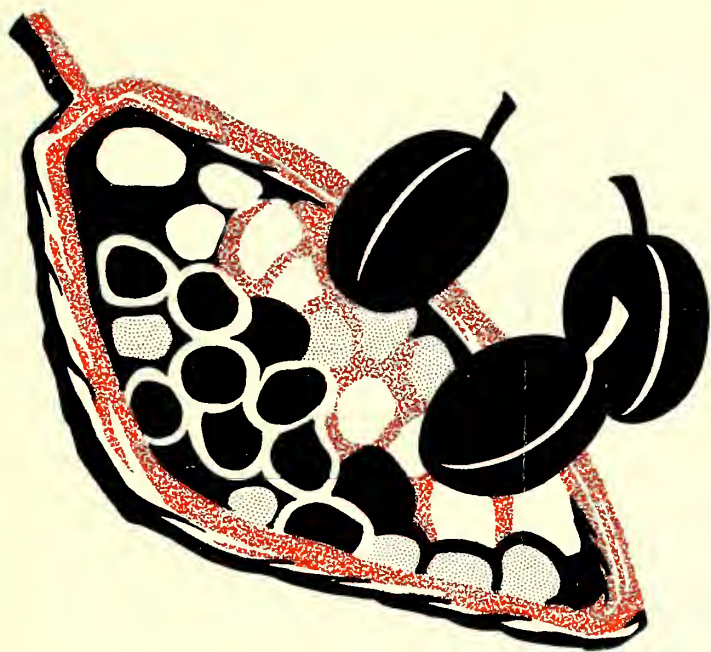
7

The family of Cannon Rubber products is always increasing. The range includes the world famous MODERN teats and soothers, the CAPITOL series of bathing caps and RIPPLE and DOLPHIN Hot Water bottles. Popular with children are the NOAH'S ARK ANIMAL and COTTAGE DOLL hot water bottles in novelty boxes. Cannon products give long, safe service and are made of the highest quality rubber.

NEW! Multi-purpose RUBBER MAT in green, blue, black or terra-cotta. Sturdy $\frac{1}{2}$ -inch rubber brush pile; $20\frac{1}{2}$ x $14\frac{1}{2}$ inches. For car, kitchen, door and many other uses.

Also the colourful RUBBER BUCKET. Cannot rust nor scratch child or parent. Gives happy, lasting play-hours while its flexibility permits easy packing. Order now through your usual Wholesaler.

THE CANNON RUBBER MANUFACTURERS LIMITED LONDON N17



Whiffens offer you immediate delivery

CAFFEINE ALKALOID & SALTS
THEOBROMINE ALKALOID & SALTS

WHIFFENS



suppliers of fine chemicals since 1854

WHIFFEN & SONS LTD., NORTH WEST HOUSE, MARYLEBONE ROAD, LONDON, N.W.1

Telephone: PADdington 1041/6 Telegrams: Whiffen, Norwest, London

THE CHEMIST AND DRUGGIST

AUGUST 29 1953

Corvette



Good and Wet!

The Special 'Wetting Agent'

All the better for shaving, we are telling your customers and giving them these scientific reasons for saying Corvette shaves you better! The special wetting agent in Corvette Shaving Soap breaks the surface tension of the water. This means that Corvette lather spreads more evenly, penetrates deeper, gives you a remarkably good shave. And your profits will be all the better for Corvette too. Stock the whole matching range: Shaving Bowl 5/3; Bowl Refill 3/9; Shaving Stick 2/9; Stick Refill 1/9; Lather Cream 2/9; Brushless Cream 2/9; Talcum Powder 4/-; Hair Cream 3/-; After Shave Lotion 3/9; Liquid Brilliantine 3/9; Solid Brilliantine 3/3. Corvette is for the man who prefers **everything** of the best.

